

RECEIVED – DEQ

MAR 2 5 2015

Tidewater Regional Office

March 24, 2015

Dept. of Environmental Quality Tidewater Regional Office Attn: Mr. Carl Thomas 5636 Southern Boulevard Virginia Beach, VA 23462

SUBJECT: LYON SHIPYARD PERMIT APPLICATION RENEWAL VA0092495

Mr. Thomas,

Attached to this letter is the permit application for the reissuance of VA0092495. Lyon Shipyard has had much success over the last five years under it current permit by the continuous reduction in Total Suspended Solids. The reduction is primarily due to the improvements to the facility from paving, in which approximately 90 percent of the yard is now paved. Furthermore, a 1800 sqft roofed containment area has been constructed for the temporary storage of 55 gallon drums, replacing the existing containment area located next to the river.

Collection of 100 percent of process water on the dry-dock (outfall 001) has occurred within the current permit cycle. The collection has taken away the need for treatment devices to discharge to surface waters. The current process is that a grated trap located at the bow of the vessel collects process water due to the intentional lean of the vessel. Once in the trap, a pump with an automatic float switch pumps the process water via pipes into a 10,000 gallon tank located on shore. The tank is then emptied by a contractor and hauled off site for disposal. It is Lyon Shipyard's intent to continue this process in the reissuance of the permit.

Considerations in the permit application consist of the following:

1. For outfalls 014, 015, and 016 defined as pressure relief discharges in the current permit are on the forms 2E. We respectfully request a waiver for no sampling. The devices used are for fire fighting and testing uses only. The source of water is drawn from the receiving stream with no chemical additions.

- 2. For outfalls 002, 003, 004 defined as process wastewaters from vessel inspection, repair and maintenance in the current permit are on form 2C. Outfall 003 is now considered paved. All outfalls share the similar process in how process water is generated by means of water blasting, and by the type of vessels being worked on. Due to the similarity I used samples in Section V (BOD, COD, TOC, NH3, Total Cu, and Total Zn) from outfall 003 as a representative sample for outfalls 002 and 004. The only difference will be TSS, Flow, Temp, pH, which will have long term average values based upon the outfall. (Spreadsheets and sample data are attached to form 2C)
- 3. For outfall 901, defined as storm water runoff from the dry-dock found on form 2F. Lyon Shipyard received lab data of the BOD sample taken for this application. The concentration for BOD exceeded the expected and comparative range, and do not feel at this time that it fully represents the outfall. We are resampling at our earliest opportunity. The concentration is in the application for your viewing.
- 4. Outfalls 902,903,904; defined as storm water runoffs from regulated activities in the current permit are located on form 2F. All outfalls share the similar industrial processes, and by the type of vessels being worked on. Due to the similarity I used samples in Section VII (Oil and Grease,BOD,COD,TN, and TP) from outfall 902 as a represented sample for outfalls 903 and 904. The only difference will be TSS, pH, dissolved Cu, and dissolved Zn, which will have long term average values based upon the outfall. (Spreadsheets and sample data are attached to form 2F)
- 5. Outfalls 006,009,011; defined as storm water runoffs from regulated activities in the current permit are located on form 2F. . All outfalls share the similar industrial processes as being general yard outfalls. Due to the similarity I used samples in Section VII (Oil and Grease, BOD, COD, TN, and TP) from outfall 006 as a represented sample for outfalls 009 and 011. The only difference will be TSS, pH, dissolved Cu, and dissolved Zn, which will have long term average values based upon the outfall. (Spreadsheets and sample data are attached to form 2F)
- 6. I request that 004 process water sampling and 011 storm water sampling be excluded from the new permit.
 - a. Outfall 011 is a burdensome sample as it requires plastic sheeting over a storm drain to halt flow and collect a sample. Little sample can be collected within a reasonable time frame and with the potential addition of nutrient monitoring I

foresee this outfall being problematic. The outfall collects rainwater from 52,775 sq foot but instantaneous flow is primarily dominated by downspouts from rooftops.

b. Outfall 004 is a burdensome sample as well due to the constructed materials of the deck. It is with best effort that a representative sample is obtained; however, a truly representative sample is best obtained from another outfall in which industrial processes are the same.

In conclusion, Lyon Shipyard will continue to search technological advances and improvements in BMPS for a better environment.

Dan Terry (

dterry@lyonshipyard.com office-(757)622-4661 ext. 472

Cell-(757)323-2599

Thomas, Carl (DEQ)

From:

Daniel Terry [dterry@lyonshipyard.com]

Sent:

Wednesday, December 30, 2015 10:43 AM

To: Cc: Thomas, Carl (DEQ)

Subject:

tbea835062@aol.com

Attachments:

Permit Application Questions and Responses Thomas_Letter_Dec15.pdf; Attachments.pdf

Mr. Thomas,

Please see attached letter and attachments as response to your questions submitted on December 22 followed by an onsite visit.

Any questions or concerns please let me know.

Have a Happy New Year.

VR

Daniel N. Terry

Asst. Environmental Manager Office: (757) 622-4661 ext. 472

Cell: (757) 323-2599

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December 30, 2015

Dept. of Environmental Quality Tidewater Regional Office Attn: Mr. Carl D Thomas 5636 Southern Boulevard Virginia Beach, VA 23462

SUBJECT: RE Reissuance of VDPES Permit

Mr. Thomas

The following is in response to questions you posed to Lyon shipyard in letter form on December 22, 2015 including an on site visit in which items were discussed.

In response to EPA form 2C, Part II.A. Attached is a drawing of Lyon Shipyard's Emergency fire suppression lines and pumps. We have two (2) sites in which water can be pumped from the Elizabeth River. The first site (Pump #1) is a 500 GPM pump which operates off of electricity. The second site (Pump #2) consists of a 300 GPM pump which is a diesel powered unit. This second site is only used in a complete electrical and water system failure, in which an emergency fire has taken place and electricity is interrupted, thus preventing the electrical pump to operate. The system is fully charged and pressurized at all times in case of an emergency. The system is used infrequently and serves as the shipyard's emergency fire fighting system. The total amount of time in which the system has operated for the year is approximately 25 hours for safety checks, freeze protection, and maintenance to ensure proper operation. The discharge points of the emergency fire main would be at the manifolds located at the quay walls, railways, piers, and dry-dock.

In response to EPA form 2C, Part II.A. Please see water balance drawing(s) attached for process waters occurring at Railways and Dry-dock.

In response to EPA form 2C, Part II.A. Sanitary wastewaters onsite are collected via pipes and pump station operated and maintained by HRSD. Sanitary wastewaters/ greywaters from vessels would be removed via a qualified pump and disposal company. A great percentage of vessels are not manned with a crew, so a continual waste stream in not generated. Manned vessels have access to onsite restroom facilities.

In response to EPA Form 2C, Part II. C. Process water from outfall 001 from dry dock #2 is 100 percent collected. Please see water balance drawing previously mentioned. The process water is generated from city sources within the dry dock. The water falls on the deck and runs forward on the port and starboard sides of the dry dock to a grate system that holds a pump system. The pump system is actuated by a float switch or manual selection to pump process water to an on shore 20,000 gallon holding tank. A contractor is available on an on call basis and routine visitation to remove process water and haul to permit destination.

In response to EPA Form 2C, Part II. C.3 Values for outfalls 002, 003,004 were developed at specific averages within the questioned time frame. Please see attachment (Dockings for 2013 and 2014) for guidance. For example outfall 002 the average per year of vessels water washed in 2013 and 2014 was 16.5. This was taken from a total number of vessel washed (33) and divided into the years mentioned above. Days per week in which discharge occurs= 16.5 vessels * average time to clean 1 vessel is one (1) day which equals 16.5 vessels washed in 16.5 days divided by 52 weeks equals 0.317 or 0.32 days of washings per week. The same logic is used for months per year as well. This is logical as the number would be a fraction since less than 52 vessels were water washed within a given year at the outfall. Rounding to a whole number is acceptable if needed. Flow rates and volumes also indicated on (Dockings for 2013 and 2014) attachment. Assumptions based on onsite collected data are: 17,000 gallons per event was the average. The maximum is 30,000 gallons per event.

<u>In response to EPA form 2C, Part VIII.</u> Effluent samples for laboratory analysis were analyzed by Universal Laboratories 20 Research Drive Hampton, VA 23666. pH and Temperature analysis was completed by onsite personnel.

<u>EPA Form 2D</u> Lyon shipyard is expecting to receive a new dry dock at sometime during this upcoming permit cycle. The expected delivery date and date in which industrial activities will commence will be no later than the last day of the permit effective date.

<u>Public Notice Authorization Form</u> – Completion of the public notice authorization form will be considered once the draft permit is received.

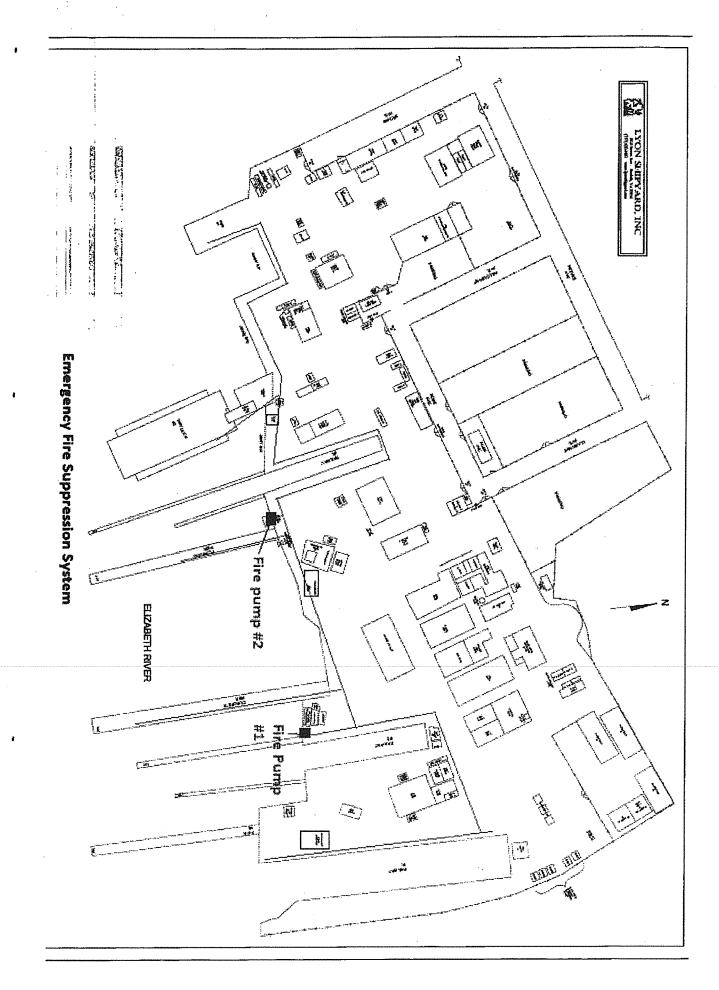
Very respectfully,

Dan Terry

dterry@lyonshipyard.com office-(757)622-4661 ext. 472

Cell-(757)323-2599

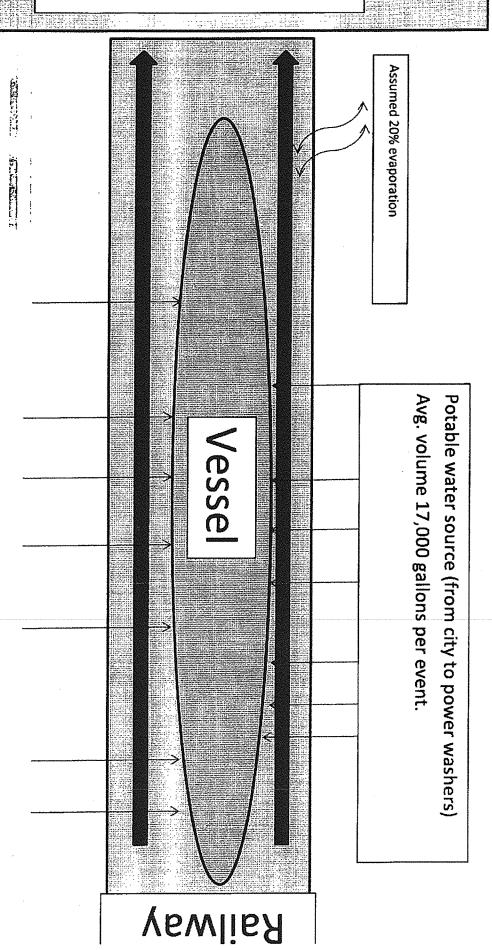
CC. Mr. Tom Beacham



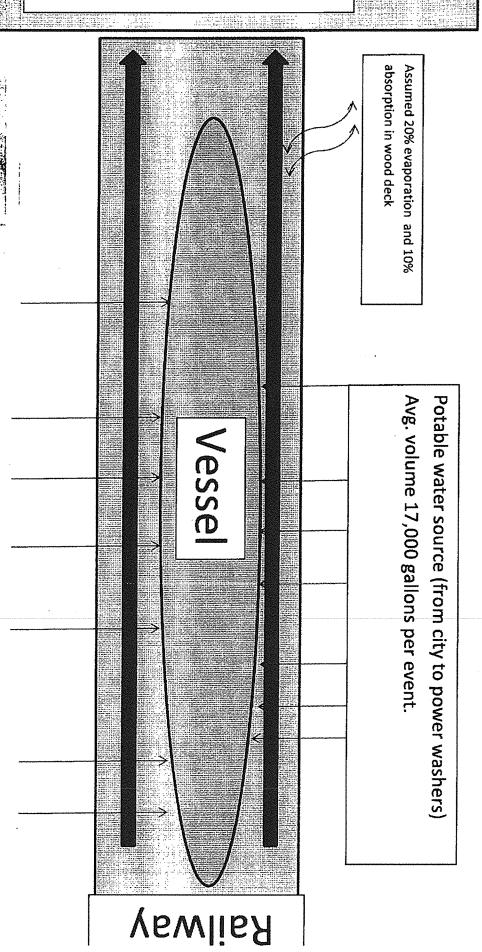
Elizabeth River

THE PARTY OF THE P





Elizabeth River



Lyon Shipyard Railway 1 Water Balance

Dockings for 2013 and 2014

	5	4 4	W	3	4th 3rd 2nd	2013	
	8 5	4 1	6 3	4 3	1st		
	ω	2	3	4	4th		
	1	11	4	3	3rd	2014	
	5	6	2	4	2nd :	14	
	W	4	4	9	1st		
		26	26	33		Totals	
		13	13	16.5	/2	Avg. Per Year	
				280,500	17,000	Avg gals used per event	
0.001979 MDG	1979.452 GPD total	605.4795 GPD	605.4795 GPD	768.4932 GPD			

Outfall

VaDEQ ANNUAL PERMIT MAINTENANCE FEE FORM

(PLEASE COMPLETE AND RETURN THIS FORM WITH PERMIT APPLICATION)

1.	Facility Name:	Lyon (Please	Ship	yard facility name	es annlicable for	the information listed below)
			Beown				,
-		NorF	olk va	23501			
2.	Permit Number(s)	: VA00 (Please	NAZY95 note all VP	DES individu	ial permit numbe	ers applicable for information	n provided)

3 .	Tax Payer ID [FIN]	: 547	030829	10			
4.	Billing Information	า:					
	Corporate Name or	Owner	Name:	<u>_</u> L	yon Shipyar	à Inc.	<u> </u>
	Corporate Billing Adoress	dress:			0.4735	RECEIVED - DI	=0
			NORFO	LL VA	23501	MAR 2 5 2015	
	·		-			Tidewater Regio Office	mal /
5.	Billing Contact:						
	Name & Title:	Ken	Kimball	47	AL-MANUEL BURNAL AND A STATE OF THE STATE OF		All de la contraction de la co
	Phone Number:	757-6	022-466	1 x 308)		
	E-mail address:	KKINS	a11@1401	nshipyari	1.00m		

VaDEQ VPDES Permit Application Addendum

1.	Entity to whom the permit is to be issued: Lyon Shipyard Inc.
	Who will be legally responsible for the wastewater treatment facilities and compliance with the permit? This may or may not be the facility or property owner.
2.	Is this facility located within city or town boundaries? Yes or No
3.	Provide the tax map parcel number for the land where the discharge is located. 6091~1616
4.	What is the average process effluent flow of this facility? <u>১,০০)৭7৭</u> MGD
	For industrial facilities, provide the max. 30-day average production level, include units: NK
	In addition to the design flow or production level, should the permit be written with limits for any other discharge flow tiers or production levels: Yes or No NA
	If "YES", please identify the other flow tiers (in MGD) or production levels:
	Please consider the following questions for both the flow tiers and the production levels (if applicable): Do you plan to expand operations during the next five years? Is you facility's design flow considerably greater than your current flow?
5.	Nature of industrial operations generating wastewater: Mater washing of vissils
6.	Mode of Discharge:Continuous IntermittentSeasonal Describe frequency and duration of intermittent or seasonal discharges:
7.	Identify characteristics of receiving stream at the point just above the facility's discharge point:
	Permanent stream, never dry Intermittent stream, usually flowing, sometimes dry Ephemeral stream, wet-weather flow, often dry Effluent-dependent stream, usually or always dry without effluent flow 2.5 2015 Lake or pond at or below the discharge point
	Other Tidewater Regional
8.	Approval Date(s): O & M Manual
	Sludge/Solids Management Plan
	Have any operational changes or procedures occurred since the approval dates? Yes or No
9.	Do you plan to sign up for e-DMR, the DEQ's electronic Discharge Monitoring Reporting program?
	YesNo; and

Earm	Annround	OMD No.	2040-0086.
PUHH	ADDIOVEU.	CIVID NO.	. 2040-0000.

FORM	U.S. ENVIRO					j	I. EPA I.D. NUMBER			
1 SEPA	Con	nsolida	ted P	FORMA Permits Progractions" befo	ıraı	n	F VAD003177003			T/A C
GENERAL LABEL ITEMS			20,000,000,00		West wild and	siaring.j	1 2 GENERAL INSTRU			· · · · · · · · · · · · · · · · · · ·
	VAD003 Lyon Sh				•		If a preprinted label has been designated space. Review the inform is incorrect, cross through it and er	nation c	arefully	; if any of it
II. FACILITY NAME	PO BO	$\times 2$	21	86	_	2504	appropriate fill-in area below. Also, it is absent (the area to the left of information that should appear), plea	any of the lat	the pre el spa	printed data ce lists the
V. FACILITY MAILING	NORFO	>L₽ >□	< ,	VA:	2	3501	fill-in area(s) below. If the label is need not complete Items I, III, V, a	complet	e and	correct, you
ADDRESS	NORFC	/L_E	∿,	V/\			must be completed regardless). Col has been provided. Refer to the in- descriptions and for the legal author	nplete a	all item: is for d	s if no label etailed item
VI. FACILITY LOCATION II. POLLUTANT CHARACTERISTICS							data is collected.	nzation	s unde	WINCH UNS
INSTRUCTIONS: Complete A through submit this form and the supplementa you answer "no" to each question, you instructions. See also, Section D of the	al form listed in the paren a need not submit any of	thesis these	foliov forms old-f	wing the que s. You may a faced terms	est ans	tion. Mark "X" in the box in t	the third column if the suppleme	ntal for	m is a Sectio	ttached. If n C of the
SPECIFIC QUESTI	ons	YES	Mark NO	FORM ATTACHED		SPECIFIC	QUESTIONS	YES	Mark NO	FORM ATTACHED
A. Is this facility a publicly owned tr results in a discharge to waters of		16	X 17	18	В	include a concentrated	(either existing or proposed) animal feeding operation or ion facility which results in a le U.S.? (FORM 2B)	19	20	21
C. Is this a facility which currently re- waters of the U.S. other than tho- above? (FORM 2C)		X	23	× 24	D	. Is this a proposed facility (other than those described in A ult in a discharge to waters of		X	
E. Does or will this facility treat, hazardous wastes? (FORM 3)	store, or dispose of	28	29	30	F.	municipal effluent belo	ct at this facility industrial or by the lowermost stratum quarter mile of the well bore, rinking water? (FORM 4)	25	×	
G. Do you or will you inject at this facil or other fluids which are broug connection with conventional oil or inject fluids used for enhanced rec gas, or inject fluids for storage of (FORM 4)	ht to the surface in natural gas production, covery of oil or natural	34	× 35	36	Н	. Do you or will you inject processes such as mining	at this facility fluids for special of sulfur by the Frasch process, ils, in situ combustion of fossil	31	32	33
I. Is this facility a proposed stationar of the 28 industrial categories listed which will potentially emit 100 ton pollutant regulated under the Clean or be located in an attainment area?	in the instructions and is per year of any air Air Act and may affect	40	× 41	42	J.	NOT one of the 28 indi instructions and which wi year of any air pollutant re	d stationary source which is ustrial categories listed in the Il potentially emit 250 tons per gulated under the Clean Air Act cated in an attainment area?	43	×	45
III. NAME OF FACILITY C SKIP Lyon Shipyard 15 16 - 29 30			T		Ī			69		
Thomas Beacham	A. NAME & TITLE (last.	first, &	title)			45 4	B. PHONE (area code & no.) (757) 622-4661	55		
V.FACILTY MAILING ADDRESS						<u> </u>				
c	A. STREET OR P.C), вох Т	T T	1 1 1	1	45	MAD	9111	D.	DEQ
c 4 Norfolk	B. CITY OR TOWN	T	Ι		I		D. ZIP CODE TIGOWale		20/	
VI. FACILITY LOCATION										
A. STREET, C Nose Ave. and Clai	ROUTE NO. OR OTHER borne Ave.	R SPEC	CIFIC T	IDENTIFIE	R	45		-	and the second	
NA 46	B. COUNTY	NAME T	T	ТТ	T					
							70			

CONTINUED FROM THE FRONT		
VII. SIC CODES (4-digit, in order of priority) A. FIRST	D. 0500MD	
c (specify) Shipbuilding and Repair	B. SECOND Specify Shipbuilding and Repair	
7 3731	7 3732 (specify) surpositioning and repair	
15 16 - 19 C. THIRD	D. FOURTH	
7 4499 (specify)Marine Railways and drydocking vessels	c (specify)	***************************************
15 16 19	15 16 - 19	
VIII. OPERATOR INFORMATION	113/10 2 10	
A. NAME		B.Is the name listed in Item
8 Lyon Shipyard		VIII-A also the owner? ☑ YES □ NO
15 16	55	66
C. STATUS OF OPERATOR (Enter the appropriate letter into the	answer box: if "Other," specify.)	PHONE (area code & no.)
	pecify)	(757) 600 4664
S = STATE P = PRIVATE O = OTHER (specify)	<u>A</u>	(757) 622-4661
. 56	15	6 - 18 19 - 21 22 - 26
E. STREET OR P.O. BOX		
PO Box 2180		
26	55	
F. CITY OR TOWN	G. STATE H. ZIP CODE IX. INDI	AN LAND
B Norfolk		cility located on Indian lands?
B NOTIOIR	VA 23501 □ YES	S ☑ NO
	40 41 42 47 - 51	
X. EXISTING ENVIRONMENTAL PERMITS A. NPDES (Discharges to Surface Water) D. PSD (Air En	nissions from Proposed Sources)	
C T I C T I		
9 N VA0092495 9 P 5171000	0249 (Reg # 61274)	
15 16 17 18 30 15 16 17 18	30	
B. UIC (Underground Injection of Fluids)	E. OTHER (specify)	WWW.414.414.414.414.41
9 0 9	(specify)	
15 16 17 18 30 15 18 17 18	30	
C. RCRA (Hazardous Wastes)	E. OTHER (specify)	
9 R VAD003177003	(specify)	
15 16 17 18 30 15 16 17 18	30	**************************************
XI. MAP		
Attach to this application a topographic map of the area extending to at least one	mile beyond property boundaries. The map must show	the outline of the facility, the
location of each of its existing and proposed intake and discharge structures, each injects fluids underground. Include all springs, rivers, and other surface water bodies	of its hazardous waste treatment, storage, or disposal fa	cilities, and each well where it
XII. NATURE OF BUSINESS (provide a brief description)	are map area. See management to, preside requirement	
Facility is a shipbuilding and repair facility located of	on the eastern branch of the Elizabet	h Direct Vessels
serviced include but not limited to: tugboats, various h	barges, dredges, and smaller military	n kiver. Vessels vessels.
Ship repair involves various operations such as abrasive waterwashing, and painting applications to marine struct	tures. This facility operates three (terblasting, 3) marine railwavs
and one drydock with the purpose of removing vessels from	om the water.	
Welding, burning and grinding operation;s are performed	with the nurnose of renairing damage	d steel structures
on marine vessels and structures. Repair of vessel mach:	inery, propulsion and electrical syst	ems are part of the
repair capabilities. A website is available at www.lyone	shipyard.com for additional informati	on.
		,
XIII. CERTIFICATION (see instructions)		
I certify under penalty of law that I have personally examined and am familiar with to	he information submitted in this application and all attac	hments and that, based on my
inquiry of those persons immediately responsible for obtaining the information containing	ained in the application. I believe that the information is a	true, accurate, and complete. I
am aware that there are significant penalties for submitting false information, including	grue possibility of fine and imprisonment.	T
A. NAME & OFFICIAL TITLE (type or print) B. SIGNATURE	1 2-1	C. DATE SIGNED
$n = \frac{1}{n}$	/////	
Van lerry Asst. Environmental Manager / und	11 cmg	23MAR15
COMMENTS FOR OFFICIAL USE ONLY		
101		

Please print or type in the unshaded areas only.

VAD003177003

FORM 2C S

U.S. ENVIRONMENTAL PROTECTION AGENCY APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURE OPERATIONS

Consolidated Permits Program

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For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER	B. LATITUDE			C. LONGITUDE			
(list)	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	D. RECEIVING WATER (name)
001	36.00	841.00	620.00	-76.00	269.00	451.00	Eastern Branch of Elizabeth River
002	36.00	841.00	967.00	-76.00	269.00	272.00	Eastern Branch of Elizabeth River
003	36.00	842.00	334.00	-76.00	267.00	469.00	Eastern Branch of Elizabeth River
004	36.00	842.00	372.00	-76.00	266.00	442.00	Eastern Branch of Elizabeth River
			:				

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

- A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.
- B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUT-			3. TREATMENT			
FALL NO. (list)	u. Of LINTS (031)	b. AVERAGE FLOW (include units)	a. DESCRIPTION		DES FROM E 2C-1	
001	Waterwashing, sandblasting, Painting	No discharge	waterwashing from operations on drydock is collected			
	Stormwater, ballast water					
002	Waterwashing, sandblasting, Painting	Waterwashing approx 17k	Waterwashing of marine vessels	4-A		
	Stormwater, ballast water					
003	Waterwashing, sandblasting, Painting	Waterwashing approx 17k	Waterwashing of marine vessels	4-A		
	Stormwater, ballast water					
004	Waterwashing, sandblasting, Painting	Waterwashing approx 17k	Waterwashing of marine vessels	4-A		
	Stormwater, ballast water					
	*					
	,					
	·					
OFFICIAL	USE ONLY (effluent quidelines sub-categorie	L			L	

OFFICIAL USE ONLY (effluent guidelines sub-categories)

CONTINUED FROM THE FRONT C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal? YES (complete the following table) NO (go to Section III) 3. FREQUENCY 4. FLOW B. TOTAL VOLUME a. DAYS PER WEEK 2. OPERATION(s) CONTRIBUTING FLOW b. MONTHS a. FLOW RATE (in mgd) (specify with units) 1. OUTFALL NUMBER (list) (specify PER YEAR (specify average) C. DURATION 1. LONG TERM AVERAGE 2. MAXIMUM DAILY 1. LONG TERM 2. MAXIMUM AVERAGE DAILY (list) average) (in days) 002 Waterwashing Operations-0.000768 54 0.000768 0.03 0.03 vessels avg. for 2013 and 2014 003 Waterwashing Operations- 13 vessels 0.000605 . 25 .42 0.000605 0.03 0.03 13 avg. for 2013 and 2014 004 Waterwashing Operations- 13 vessels .42 0.000605 0.000605 . 25 0.03 0.03 1.3 avg. for 2013 and 2014 III. PRODUCTION A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility? YES (complete Item III-B) NO (go to Section IV) B. Are the limitations in the applicable effluent guideline expressed in terms of production (or other measure of operation)? YES (complete Item III-C) NO (go to Section IV) C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls. 1. AVERAGE DAILY PRODUCTION 2. AFFECTED OUTFALLS c. OPERATION, PRODUCT, MATERIAL, ETC. a. QUANTITY PER DAY b. UNITS OF MEASURE (list outfall numbers) (specify) IV. IMPROVEMENTS A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operations of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions. YES (complete the following table) NO (go to Item IV-B)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AF	FECTED OUTFALLS	3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE		
,	a. NO. b. SOURCE OF DISCHARGE		a. REQUIRED	b. PROJECTED		
		,				
*		·				
 OPTIONAL: You may attach addit discharges) you now have underwa construction. 	ional sheets y or which y	describing any additional open plan. Indicate whether ea	water pollution control programs (or other environmental ich program is now underway or planned, and indicate you	projects which ractual or plann	may affect your ed schedules for	

MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

CONTINUED FROM PAGE 2

VAD003177003

V. INTAKE AND EFFLUENT CHARACTER							
NOTE: Tables V-A, V-B, and \	A, B, & C: See instructions before proceeding – Complete one set of tables for each outfall – Annotate the outfall number in the space provided. NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9. D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged.						
D. Use the space below to list any of the from any outfall. For every pollutant yo	pollutants listed in Table 2c-3 of the instruc u list, briefly describe the reasons you believ	tions, which you know or have reason to be ve it to be present and report any analytical o	elieve is discharged or may be discharged lata in your possession.				
1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE				
No reason to believe that any polluants listed in Table 2c-3							
are present and or discharged.	,						
	<i>t</i>						
	<i>;</i>						
	j						
VI. POTENTIAL DISCHARGES NOT COV	EPED BY ANALYSIS						
	nce or a component of a substance which ye	ou currently use or manufacture as an interm	nediate or final product or byproduct?				
YES (list all such pollutants	below)	NO (go to Item VI-B)					
	3						
,							
·							
		•					

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA	A		
Do you have any knowledge or reason to bel	ieve that any biological test for acute or chronic toxic	ity has been made on any of your dis	charges or on a receiving water in
relation to your discharge within the last 3 year		J1	
YES (identify the test(s) and de	scribe their purposes below)	NO (go to Section VIII)	
Under current permit requirement sheephead minnow are tested.	ments, outfalls 002 and 003 requir	e acute toxicity testing	. Both Mysis shrimp and
	•		
,			
•			
VIII. CONTRACT ANALYSIS INFORMATION			
		-	19 m
Were any of the analyses reported in Item V	performed by a contract laboratory or consulting firm	?	,
	d telephone number of, and pollutants analyzed by,	NO (go to Section IX)	
each such laboratory or fir	m below)		
A. NAME	B. ADDRESS	C. TELEPHONE	D. POLLUTANTS ANALYZED
		(area code & no.)	(list)
			•
·			
	*		
IX. CERTIFICATION			
I certify under penalty of law that this docum	ent and all attachments were prepared under my di	rection or supervision in accordance	with a system designed to assure that
directly responsible for gathering the informa	aluate the information submitted. Based on my inq ation, the information submitted is, to the best of my	knowledge and belief, true, accurate	nanage the system or those persons
are significant penalties for submitting false	information, including the possibility of fine and impr	sonment for knowing violations.	, and complete, i am aware mat mere
A. NAME & OFFICIAL TITLE (type or print)		B. PHONE NO. (area code & no.)	
The thinks a dirition to the title (type or print)			
~ =			
Dan Terry		757-323-2599	
		757-323-2599 D. DATE SIGNED	
~ =			

EPA Form 3510-2C (\$\frac{1}{2}90)

EPA I.D. NUMBER (copy from Item 1 of Form 1) VAD003177003

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages. SEE INSTRUCTIONS.

OUTFALL NO. PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details. V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

, a								***************************************		***************************************		Ī
a				2. EFFLUENT	F			3. UNLLS (specify if blank)	S 'amk)	. 4	4. INTAKE (optional)	
5	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY (if available)	AY VALUE	c. LONG TERM AVRG. VALUE (if available)	G. VALUE				a. LONG TERM AVERAGE VALUE		
1. POLLUTANT COI	(1) CONCENTRATION (2) M	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	(1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (BOD)	к		•				Н	mg/L				
b. Chemical Oxygen Demand (COD)	40.15						ы	mg/L				-
c. Total Organic Carbon (70C)	4.54						Н	mg/L		-		
d. Total Suspended Solids (TSS)	397				205.5		4	mg/L		-		
e. Ammonia (as N)	76.0						н	T/Sw	***************************************			
f. Flow	VALUE 0.030	>	VALUE		VALUE 0.000769	6		MGD		VALUE		
g. Temperature VAL (winter)	VALUE 27.3	>	VALUE		VALUE 21.2		4	ပ္		VALUE		
h. Temperature VAI (summer)	VALUE	>	VALUE		VALUE		Ħ	Û		VALUE		
MIN Hd .	MINIMUM MAXIN	MAXIMUM N	MINIMUM	MAXIMUM			4	STANDARD UNITS	UNITS			

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2 for any pollutant which is limited either directly but expressly, in a filture in limitations of provide the results of a flast one analysis for that pollutants for which you mark column 2a, you must provide the results of a flast one analysis for that pollutants for which you mark column 2a, you must provide the results of a flast one analysis of that pollutants for which you mark column 2a, you must provide the results of a flast one analysis of that pollutants for which you mark column 2a.

		2. MARK "X"			3.	3. EFFLUENT	3. EFFLUENT 4. UNITS			4. UNITS	TS	5. INT.	5. INTAKE (optional)	()
1. POLLUTANT AND	t	نه	a. MAXIMUM DAILY VALUE	JLY VALUE	b. MAXIMUM 30 DAY (if available)	DAY VALUE	MUM 30 DAY VALUE c. LONG TERM AVRG. VALUE (if available)	VRG. VALUE				a. LONG TERM AVERAGE VALUE	AVERAGE	
CAS NO. (if available)	BELIEVED PRESENT	BELIEVED	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	TRATION b. MASS CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
a. Bromide (24959-67-9)		×												
b. Chlorine, Total Residual		×												
c, Color		×												
d. Fecal Coliform		X												
e. Fluoride (16984-48-8)		X												
f. Nitrate-Nitrite (as N)		×												

CONTINUE ON REVERSE

ITEM V-B CONTINUED FROM FRONT

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	2010110				***************************************						·			
	Z. MARK "X"	×			9	3. EFFLUENT				4. UNITS	TS	5. INTA	5. INTAKE (optional)	
	ю́	نم		Y VALUE	b. MAXIMUM 30 DAY VALUE (if available)	DAY VALUE	c. LONG TERM AVRG. VALUE (if available)		(i	************	a. LONG TERM AVERAGE VALUE		
(if available)	BELIEVED PRESENT	BELIEVED ABSENT	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	a. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	(1) CONCENTRATION	ASS	b. NO. OF ANALYSES
g. Nitrogen, Total Organic (as		X												
h. Oil and Grease		X												
i. Phosphorus (as P), Total (7723-14-0)		X												
j. Radioactivity					,									
(1) Alpha, Total		X					,							
(2) Beta, Total		X												
(3) Radium, Total		×												
(4) Radium 226, Total		X												
k. Sulfate (as SO ₄) (14808-79-8)		X												
I. Sulfide (as S)		X												
m. Sulfite (as SO ₃) (14265-45-3)		×												
n. Surfactants		X												
o. Aluminum, Total (7429-90-5)		X												
p. Barium, Total (7440-39-3)		\times												
q. Boron, Total (7440-42-8)		×												
r. Cobalt, Total (7440-48-4)		×			-									
s. iron, Total (7439-89-6)		X								,				
t. Magnesium, Total (7439-95-4)		×												
u. Molybdenum, Total (7439-98-7)		X												
v. Manganese, Total (7439-96-5)		×												
w. Tin, Total (7440-31-5)		×												
x. Titanium, Total (7440-32-6)		X												
EPA Form 3510-2C (8-90)	2C (8-90)						PAGE V-2					8	CONTINUE ON PAGE V-3	N PAGE V-3

OUTFALL NO. PART A -You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details. EPA I.D. NUMBER (copy from Item I of Form I) VAD003177003 PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages. SEE INSTRUCTIONS. V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

				2. EFFLUENT	LN			3. UNITS (specify if blank)		4. IN' (opti	4. INTAKE (optional)	
	a. MAXIMUM DAILY VALUE	AILY VALUE	b. MAXIMUM 30 DAY ' (if available)	DAY VALUE	c. LONG TERM AVRG. VALUE (if available)	G. VALUE)	()			a. LONG TERM AVERAGE VALUE		
1. POLLUTANT	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(Z) MASS	(1) CONCENTRATION	(2) MASS	a. NO. OF ANALYSES	a. CONCENTRATION b. N	b. MASS COI	(1) CONCENTRATION (2	(2) MASS	b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (BOD)	ю						Н	T/bm				
b. Chemical Oxygen Demand (COD)	40.15						Н	T/6m				
c. Total Organic Carbon (10C)	4.54						Н	mg/L				
d. Total Suspended Solids (TSS)	376				178.6		5	T/bm				
e. Ammonia (as N)	0.97						Н	T/bm				
f. Flow	VALUE 0.030	0	VALUE		VALUE 0.000605	2		MGD	VALUE	UE		
g. Temperature (winter)	VALUE 27.2	2	VALUE		VALUE 19.2		4	၁့	VALUE	UE		
h. Temperature (summer)	VALUE		VALUE		VALUE		Н	ပ္	VALUE	UE		
l. pH	MINIMUM 6.8	MAXIMUM 7.9	MINIMUM	MAXIMUM			5	STANDARD UNITS	LS			
0 TOVO	done 2 a for each	tachillon	occupation money	a ci cucilod ct a	and the best section of the section	he for age and a	oreifode	a ion 31 tanada ad at	amilion des	On for one and act	il of delding	site of Sithor

PART B — Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

		2. MARK "X"			3.	3. EFFLUENT				4. UNITS	TS.	5. INT	5. INTAKE (optional)	
1. POLLUTANT AND			AMAXIMIM NAINY VALIE	1 Y VAI 11E	b. MAXIMUM 30 DAY	DAY VALUE	b. MAXIMUM 30 DAY VALUE c. LONG TERM AVRG. VALUE (Hamilable)	VRG. VALUE				a. LONG TERM AVERAGE	AVERAGE	
CAS NO. (if available)	BELIEVED PRESENT	BELIEVED ABSENT	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION) MASS	(1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. CONCEN- TRATION b. MASS CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
a. Bromide (24959-67-9)		X				 								
b. Chlorine, Total Residual		X									·			
c. Color		X												
d. Fecal Coliform		X												
e. Fluoride (16984-48-8)		X												
f. Nitrate-Nitrite (as N)		×												

CONTINUE ON REVERSE

ITEM V2B CONTINUED FROM FRONT

ITEM V"B CONTINUED FROM FRONT 2 MARK "X"	ED FROM FRON	<u></u>		6	3 EFFLUENT				4 UNITS	S	YINI S	5 INTAKE (optional)	
1. POLLUTANT AND	e d	a. MAXIMUM DAILY VALUE	AILY VALUE	b. MAXIMUM 30 DAY VALUE (if available)	DAY VALUE	c. LONG TERM AVRG. VALUE (if available)	-				a. LONG TERM AVERAGE VALUE		
(if available) PR	BELIEVED BELIEVED PRESENT ABSENT	0	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	T	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	(1) CONCENTRATION	ASS	b. NO. OF ANALYSES
g. Nitrogen, Total Organic (as //)	×	,											
h. Oil and Grease	×											·	
i. Phosphorus (as P), Total (7723-14-0)	×												
j. Radioactivity													
(1) Alpha, Total	×												
(2) Beta, Total	X		-						: :				
(3) Radium, Total	X												
(4) Radium 226, Total	×												
k. Sulfate (as SO.) (14808-79-8)	×												
I. Sulfide (as S)	×												
m. Sulfite (ax SO ₃) (14265-45-3)	×							·					
n. Surfactants	×												
o. Aluminum, Total (7429-90-5)	×												
p. Barium, Total (7440-39-3)	×												
q. Boron, Total (7440-42-8)	X				-								
r. Cobalt, Total (7440-48-4)	×												
s. Iron, Total (7439-89-6)	×												
t. Magnesium, Total (7439-95-4)	×												
u. Molybdenum, Total (7439-98-7)	×												
v. Manganese, Total (7439-96-5)	×												
w. Tin, Total (7440-31-5)	×												
x. Titanium, Total (7440-32-6)	X												
EPA Form 3510-2C (8-90)	8-90)					PAGE V-2					S	CONTINUE ON PAGE V-3	V PAGE V-3

EPA I.D. NUMBER (copy from Item I of Form I)

VAD003177003 PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages. SEE INSTRUCTIONS.

b. NO. OF ANALYSES OUTFALL NO. (2) MASS 4. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION b. MASS 3. UNITS (specify if blank) a. CONCEN-TRATION PART A -You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details. mg/I mg/L mg/Img/L d. NO. OF ANALYSES М Н Н m (2) MASS c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION 635.7 2. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (2) MASS V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C) (1) CONCENTRATION a. MAXIMUM DAILY VALUE (2) MASS (1) CONCENTRATION 40.15 4.54 1695 ო c. Total Organic Carbon (TOC) a. Biochemical Oxygen b. Chemical OxygenDemand (COD) 1. POLLUTANT d. Total Suspended Solids (733) Demand (BOD)

Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfail. See the instructions for additional details and requirements. PART B -

VALUE

ပွ

m

20.3

VALUE

VALUE

20.3

VALUE

h. Temperature

MAXIMUM

MINIMUM

MAXIMUM 7.5

MINIMUM 7.0

. Н

STANDARD UNITS

 α

VALUE

ပ္

N

21

VALUE

VALUE

16.8

VALUE

g. Temperature (winter)

VALUE

MGD

0.000605

VALUE

VALUE

0.030

VALUE

f. Flow

0.97

e. Ammonia (as N)

mg/L

Н

<u> </u>	Hillanve dat	a ci all exp	qualiticative data of all explanation of their presence in your discharge. Complete one table for each outfail. See the instructions for additional details and requirements.	ence in your	oischarge, complete	one table for e	ach outfall, see the	INSTRUCTIONS TO	additional deta	lis and requiren	ents.			
		2. MARK "X"			3.	3. EFFLUENT				4. UNITS	S	5. INTA	5. INTAKE (optional)	
1. POLLUTANT					b. MAXIMUM 30	DAY VALUE	b. MAXIMUM 30 DAY VALUE c. LONG TERM AVRG. VALUE	VRG. VALUE				a. LONG TERM A	VERAGE	
AND	œ	نم	a. MAXIMUM DAILY VALUE	ILY VALUE	(if available)	ble)	(if available)	ble)				VALUE		1
(if available)	BELIEVED PRESENT	BELIEVED BELIEVED PRESENT ABSENT	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	a. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	b. MASS CONCENTRATION (2) MASS ANALYSES	(2) MASS	b. NO. OF ANALYSES
a. Bromide (24959-67-9)		×		-										
b. Chlorine, Total Residual		×												
c, Color		×										-		
d. Fecal Coliform		X												
e. Fluoride (16984-48-8)		X												
f. Nitrate-Nitrite (as N)		X												

EPA Form 3510-2C (8-90)

CONTINUE ON REVERSE

TTEM V-B CONTINUED FROM FRONT

•	4. UNITS	a. LONG TERM AVERAGE VALUE	(2) MASS ANALYSES TRATION b. MASS CONC																						
	-		(2) MASS CONCENTRATION																						
7	3. m	b. MAXIMUM 30 DAY VALUE UE (if available)																							
		a. MAXIMUM DAILY VALUE	(1) CONCENTRATION (2) MASS			-																			
ROM FRONT	2. MARK "X"	نم	BELIEVED ABSENT	X	×	X		×	X	X	×	×	X	×	X	×	×	×	×	X	×	×	×	×	×
TTEM V-B CONTINUED FROM FRONT		AND a.	CAS NO. BELIEVED If available) PRESENT	g. Nitrogen, Total Organic (as N)	h. Oil and Grease	i. Phosphorus (as P), Total (7723-14-0)	j. Radioactivity	(1) Alpha, Total	(2) Beta, Total	(3) Radium, Total	(4) Radium 226, Total	k. Sulfate (as SO ₂) (14808-79-8)	I. Sulfide (av S)	m. Sulfite (as SO;) (14265-45-3)	n. Surfactants	o. Aluminum, Total (7429-90-5)	p. Barium, Total (7440-39-3)	q. Boron, Total (7440-42-8)	r. Cobalt, Total (7440-48-4)	s. Iron, Total (7439-89-6)	t. Magnesium, Total (7439-95-4)	u. Molybdenum, Total (7439-98-7)	v. Manganese, Total (7439-96-5)	w. Tin, Total (7440-31-5)	x. Titanium, Total (7440-32-6)

 EPA I.D. NUMBER (copy, from Item 1 of Form 1)
 OUTFALL NUMBER

 VAD003177003
 002/003/004

CONTINUED FROM PAGE 3 OF FORM 2-C

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PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must lest for. Mark "X" in column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-b for each pollutant you who have reason to believe is present. Mark "X" in column 2-b for each pollutant you must provide the results of at least one analysis for that pollutant, tyou mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant and column 2b for any pollutant, you must provide the results of at least one analysis for that you mark column 2b for any pollutant, you must provide the results of at least one analysis for each of these pollutants which you must result to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants which you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for

additions	additional details and requirements.	equireme	nts.												
	2. 10	2. MARK "X"				З. Е	EFFLUENT				4. UNITS	TS	5. INTAKE	5. INTAKE (optional)	
	m	Ď	ن	a. MAXIMUM DAILY VALI	ILY VALUE	b. MAXIMUM 30 DAY VALUE (if available)	DAY VALUE	c. LONG TERM AVRG. VALUE (if available)	M AVRG.				a. LONG TERM AVERAGE VALUE		
CAS NUMBER (if available)	TESTING BE REQUIRED PE	BELIEVED	BELIEVED ABSENT	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	(1) CONCENTRATION (2	ASS	ANALYSES
METALS, CYANIDE, AND TOTAL PHENOLS	, AND TOTAL	. PHENOL	S												
1M. Antimony, Total (7440-36-0)			×												
2M. Arsenic, Total (7440-38-2)			×												
3M. Beryllium, Total (7440-41-7)			X					×							
4M. Cadmium, Total (7440-43-9)			×												
5M. Chromium, Total (7440-47-3)			X												
6M. Copper, Total (7440-50-8)		X		4.68					,	Т	T/6m			,	
7M. Lead, Total (7439-92-1)			×												
8M. Mercury, Total (7439-97-6)			×												
9M. Nickel, Total (7440-02-0)			×												
10M. Selenium, Total (7782-49-2)			×												
11M. Silver, Total (7440-22-4)			×												
12M. Thallium, Total (7440-28-0)			X		-										
13M. Zinc, Total (7440-66-6)		X		1.08						1	T/Em				
14M. Cyanide, Total (57-12-5)			×								٠				
15M. Phenols, Total			X					,			,				
DIOXIN															
2,3,7,8-Tetra- chlorodibenzo-P- Dioxin (1764-01-6)			X	DESCRIBE RESULTS	JLTS										
			***************************************					***************************************	-	***************************************			The state of the s		,

EPA Form 3510-2C (8-90)

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T TANT I LOG 1	Z. MAKK "X	×		3. EFFLUENT	L		4. UNITS	13	5. INTAKE (optional)	ntional)
	e, d	Ú	a. MAXIMUM DAILY VALUE	b. MAXIMUM 30 DAY VALUE (if available)	c. LONG TERM AVRG. VALUE (if available)	(a. LONG 1ERM AVERAGE VALUE	
- 1	TESTING BELIEVED REQUIRED PRESENT	D BELIEVED T ABSENT	(1) CONCENTRATION (2) MASS	(1) CONCENTRATION (2) MASS	8	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	(1) CONCENTRATION (2) MASS	ASS ANALYSES
GC/MS FRACTION VOLATILE COMPOUNDS	- VOLATILE COMPC	SONOC								
1V. Accrolein (107-02-8)		×								
2V. Acrylonitrile (107-13-1)		X								
3V. Benzene (71-43-2)		X								
4V. Bis (<i>Chloro-methyl</i>) Ether (542-88-1)		X								
5V. Bromoform (75-25-2)	-	×								
6V. Carbon Tetrachloride (56-23-5)		×								
7V. Chlorobenzene (108-90-7)		×								
8V. Chlorodi- bromomethane (124-48-1)		\times								,
9V. Chloroethane (75-00-3)	ž	×								
10V. 2-Chloro- ethylvinyl Ether (110-75-8)		X								
11V. Chloroform (67-66-3)		×							-	
12V. Dichloro- bromomethane (75-27-4)		X								
13V. Dichloro- difluoromethane (75-71-8)		X								
14V. 1,1-Dichloro- ethane (75-34-3)		×								
15V. 1,2-Dichloro- ethane (107-06-2)		\times		,						
16V. 1,1-Dichloro- ethylene (75-35-4)		×								
17V. 1,2-Dichloro- propane (78-87-5)		×								
18V. 1,3-Dichloro- propylene (542-75-6)		X								
19V. Ethylbenzene (100-41-4)	-	\times						-		
20V. Methyl Bromide (74-83-9)		\times								
21V. Methyl Chloride (74-87-3)		\times								
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CONTINUED FROM PAGE V-4

	2 M	2 MADRY "X"	ŀ		13 6	3 EEE! !ENIT				OTINITY	TE	TINI 3	C INTAVE (
1. POLLUTANT		V XXXX	T		b. MAXIMUM	AY VALUE	c. LONG TERM AVRG.	A AVRG.		. OI	2	a. LONG 7	FERM (opnonal)	
CAS NUMBER	a. TECTING DE	b. (2)/21 (2)		ILY VALU	ш	le)	VALUE (if avo	ilable)	NO CE	CONCE		AVERAGE VALUE	'ALUE	CIA CIA
	REQUIRED PR	PRESENT ABS	ABSENT	(1) CONCENTRATION (2) MASS	s CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	ANALYSES	TRATION	b. MASS	(1) CONCENTRATION	(2) MASS	ANALYSES
GC/MS FRACTION - VOLATILE COMPOUNDS (continued)	- VOLATILE C	COMPOUNDS	S (contin	(pənı										
22V. Methylene Chloride (75-09-2)			X											
23V. 1,1,2,2- Tetrachloroethane (79-34-5)			X											
24V. Tetrachloro- ethylene (127-18-4)			X											
25V. Toluene (108-88-3)		_	X											
26V. 1,2-Trans- Dichloroethylene (156-60-5)	-		X	-					-					
27V. 1,1,1-Trichloro- ethane (71-55-6)			X											
28V. 1,1,2-Trichloro- ethane (79-00-5)		_	×		-									
29V Trichloro- ethylene (79-01-6)			X											
30V. Trichloro- fluoromethane (75-69-4)			X											
31V. Vinyl Chloride (75-01-4)		<u> </u>	×											
GC/MS FRACTION - ACID COMPOUNDS	- ACID COMP	SONNO			-									
1A. 2-Chlorophenol (95-57-8)		^	×											
2A, 2,4-Dichloro- phenol (120-83-2)			X											
3A. 2,4-Dimethyl- phenol (105-67-9)			×		-									
4A. 4,6-Dinitro-O- Cresol (534-52-1)		$\overline{}$	X											
5A. 2,4-Dinitro- phenol (51-28-5)			X				-							ž
6A. 2-Nitrophenol (88-75-5)		<u> </u>	×											
7A. 4-Nitrophenol (100-02-7)		^	×											
8A. P-Chloro-M- Cresol (59-50-7)		^	×						-					
9A. Pentachloro- phenol (87-86-5)		$\overline{}$	×											
10A. Phenol (108-95-2)		$\overline{}$	X									-		
11A. 2,4,6-Trichloro- phenol (88-05-2)			X											
EPA Form 3510-2C (8-90)	(8-90)					PAGE V-5	V-5					00	CONTINUE ON REVERSE	EVERSE

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NORT BELL WORLD CROWN THE PROOF	ווטצון												
FIANTI	2. MARK "X"				3. EFFLUENT				4. UNITS	TS	5. INT/	5. INTAKE (optional)	
AND	نم	ú	a. MAXIMUM DAILY VALUE	LY VALUE	b. MAXIMUM 30 DAY VALUE (if available)	E c. LONG TERM AVRG. VALUE (if available)			***************************************		a. LONG TERM AVERAGE VALUE		
CAS NUMBER TEST (If available) REQU	TESTING BELIEVED I	BELIEVED	(1) CONCENTRATION		(1) CONCENTRATION (2) MASS	(1) CONCENTRATION	တ္တ	d, NO, OF a	a. CONCEN- TRATION	b. MASS	(1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS	SE/NEUTRAL CC	OMPOUNDS	S										
1B. Acenaphthene (83-32-9)		\times											
2B. Acenaphtylene (208-96-8)		×											
3B. Anthracene (120-12-7)		×											
4B. Benzidine (92-87-5)		×											
5B. Benzo (a) Anthracene (56-55-3)		×											
6B. Benzo (a) Pyrene (50-32-8)		×				2						:	f
7B. 3,4-Benzo- fluoranthene (205-99-2)		×											
8B. Benzo (<i>ghi</i>) Perylene (191-24-2)		×											
9B. Benzo (k) Fluoranthene (207-08-9)		×											
10B. Bis (2-Chloro- ethoxy) Methane (111-91-1)		X											
11B. Bis (2-Chloro- ethyl) Ether (111-44-4)		X											
12B. Bis (2- Chloroisopropyl) Ether (102-80-1)	174340	X											
13B. Bis (2-filiyl- hexyl) Phthalate (117-81-7)		X											
14B. 4-Bromophenyl Phenyl Ether (101-55-3)		×											
15B. Butyl Benzyl Phthalate (85-68-7)		×											
16B. 2-Chloro- naphthalene (91-58-7)		X											
17B. 4-Chloro- phenyl Phenyl Ether (7005-72-3)		X											
18B. Chrysene (218-01-9)		×											
19B. Dibenzo (a,h) Anthracene (53-70-3)		X											
20B. 1,2-Dichloro- benzene (95-50-1)		×											
21B. 1,3-Di-chloro- benzene (541-73-1)		×											
EPA Form 3510-2C (8-90)	_				PAG	PAGE V-6					00	CONTINUE ON PAGE V-7	AGE V-7

CONTINUED FROM PAGE V-6

CONTINUED PROM PAGE V-6	- N TAGE V-0											
TNATILITANT	2.	Z. MAKK "X"			3. EFFLUENT	L		4. UNITS	IITS	5. INTA	5. INTAKE (optional)	
AND	æ	نم	ا ن	a. MAXIMUM DAILY VALUE	b. MAXIMUM 30 DAY VALUE (if available)	c. LONG TERM AVRG. VALUE (if available)			1401.0.1	a. LONG TERM AVERAGE VALUE		
CAS NOMBER (if available)	TESTING REQUIRED	BELIEVED E	BELIEVED ABSENT	(1) CONCENTRATION (2) MASS	(1) CONCENTRATION (2) MASS	CONCENTRATION (2) MASS	d. NO. OF	a. CONCENTRATION	b. MASS	(1) CONCENTRATION	ASS	ANALYSES
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)	I – BASE/NEI	UTRAL CO	MPOUNDS		1 1	3 1						
22B. 1,4-Dichloro- benzene (106-46-7)			X									
23B. 3,3-Dichloro- benzidine (91-94-1)			X									
24B. Diethyl Phthalate (84-66-2)			X									
25B. Dimethyl Phthalate (131 -11-3)			X									
26B. Di-N-Butyl Phthalate (84-74-2)			X									
27B. 2,4-Dinitro- toluene (121-14-2)			X								,	
28B. 2,6-Dinitro- toluene (606-20-2)			X									
29B. Di-N-Octyl Phthalate (117-84-0)			X									
30B. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)			X									
31B. Fluoranthene (206-44-0)			X									
32B. Fluorene (86-73-7)			X									
33B. Hexachloro- benzene (118-74-1)			X									
34B. Hexachloro- butadiene (87-68-3)			\times									
35B. Hexachloro- cyclopentadiene (77-47-4)			X									
36B Hexachloro- ethane (67-72-1)			X		-							
37B. Indeno (1,2,3-cd) Pyrene (193-39-5)			X									
38B. Isophorone (78-59-1)			X									
39B. Naphthalene (91-20-3)			X									
40B. Nitrobenzene (98-95-3)			X									
41B. N-Nitro- sodimethylamine (62-75-9)			X									
42B. N-Nitrosodi- N-Propylamine (621-64-7)			\times									
EPA Form 3510-2C (8-90)	(8-90)				PAGE V-7	V-7				CON	CONTINUE ON REVERSE	EVERSE

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	*>" >" > " > " > " > " > " > " > " > " >	u V n			THE COURT	-			OTIMI A	ITC	TATINI Z	F INTAKE (Services)	
1. POLLUTANT	ANAM. 2	\ -			S. EFFLUEIN D. MAXIMIM 30 DAY VAII	L	M AVEC		5	2	S. IN. S.	EPM	
AND	a, D	ပ	a. MAXIMUM DAILY VALUE	AILY VALUE	D. MAXIMUM SU DAT VALUE (if available)	UE C. LONG LERM AVEG. VALUE (if available)	vailable)				AVERAGE VALUE		
	TESTING BELIEVED REQUIRED PRESENT	ED BELIEVED		(2) MASS	(1) CONCENTRATION (2) MASS	8	N (2) MASS	d. NO. OF ANALYSES	a. CONCEN- TRATION	b. MASS	(1) CONCENTRATION	ASS	ANALYSES
GC/MS FRACTION	GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)	COMPOUND	S (continued)	1 1									
43B. N-Nitro- sodiphenylamine (86-30-6)		X	W-242-54-1/4-1										
44B. Phenanthrene (85-01-8)		×											
45B. Pyrene (129-00-0)		×										-	
46B. 1,2,4-Tri- chlorobenzene (120-82-1)		X											
GC/MS FRACTION - PESTICIDES	I - PESTICIDES										,		
1P. Aldrin (309-00-2)		×		<i>,-</i>	-								
2P. α-BHC (319-84-6)		×									-		
3P. β-BHC (319-85-7)		×											
4P. ₇ -BHC (58-89-9)		×											
5P. 8-BHC (319-86-8)		×										·	
6P. Chlordane (57-74-9)		×											
7P. 4,4'-DDT (50-29-3)		X											
8P. 4,4'-DDE (72-55-9)		×											
9P. 4,4'-DDD (72-54-8)		×											
10P. Dieldrin (60-57-1)		×											
11P. α-Enosulfan (115-29-7)		×											
12P. β-Endosulfan (115-29-7)		X									·		
13P. Endosulfan Sulfate (1031-07-8)		X											
14P. Endrin (72-20-8)		×											
15P. Endrin Aldehyde (7421-93-4)		X								***************************************			
16P. Heptachlor (76-44-8)		X									-		
EPA Form 3510-2C (8-90)	(8-90)				PA	PAGE V-8					CON	CONTINUE ON PAGE V-9	PAGE V-9

b, NO. OF ANALYSES 5. INTAKE (optional)
a. LONG TERM
AVERAGE VALUE (1) CONCENTRATION (2) MASS b. MASS 4. UNITS CONCENTRATION (2) MASS ANALYSES TRATION 002/003/004 c. LONG TERM AVRG. VALUE (if available) OUTFALL NUMBER 3. EFFLUENT
b. MAXIMUM 30 DAY VALUE
(if available) (1) CONCENTRATION (2) MASS EPA I.D. NUMBER (copy from Item 1 of Form 1) VAD003177003 TESTING BELIEVED BELIEVED REQUIRED PRESENT ABSENT CONCENTRATION (2) MASS a. MAXIMUM DAILY VALUE GC/MS FRACTION - PESTICIDES (continued) 2. MARK "X" CONTINUED FROM PAGE V-8 1. POLLUTANT
AND
CAS NUMBER
(if available) 24P. PCB-1016 (12674-11-2) 25P. Toxaphene (8001-35-2) 17P. Heptachlor Epoxide (1024-57-3) 18P. PCB-1242 (53469-21-9) 22P. PCB-1248 (12672-29-6) 19P, PCB-1254 (11097-69-1) 21P. PCB-1232 (11141-16-5) 23P. PCB-1260 (11096-82-5) 20P. PCB-1221 (11104-28-2)

EPA Form 3510-2C (8-90)

PAGE V-9

Dockings for 2013 and 2014

		17,000 Avg Gallons	280,500 768.4932 GPD	221,000 605.4795 GPD	221,000 605.4795 GPD	1979.452 GPD total 0.001979 MDG
			16.5	13	13	
- - ()		Totals /2	33	26	26	
1 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 1 1 1 1		1st	6	4	4	
1	2014	2nd	4	2	9	
- 20		3rd	3	4	1	
~		4th	4	m	2	
)		1st	3	m-	-	
	2013	2nd	4	9	4	
	2	3rd	3	↤	4	
		4th	8	m	4	
		Outfall	000	003	004	

Sample Analysis for Form 2C Permit App

						-		
(T)Zn					#####	0	0	Dennis De
(T)CU					#DIV/0!	0	0	
TOC					#####	0	0	
BOD5					#### #DIV/0i #####	0	0	
COD						0	0	
NH3					####	0	0	
TPH GRO	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
TPH DRO TPH GRO NH3 COD BOD5 TOC (T)CU (T)Zn	<0.5	1.4	12	1	4.8	12	<0.5	
temp	18.5	18.1	27.3	20.8	21.2	27.3	6.8 18.1	
bH	6.9	7.9	8.9	8.9	7.1	7.9	6.8	
TSS (ppm) pH temp	14	214	397	197	205.5	397	14	
(qdd)NZ	447	988	260	510	513.25	092	336	
Outfall Cu (ppb) ZN(ppb)	174	257	2030	2780	1385.25	2780	174	
Outfall	002	002	002	002				
	92495	92495	92495	92495				
Date	12/6/2011 92495 002	12/4/2012 92495 002	10/7/2013 92495 002	10/10/2014 92495 002	Average	Max	Min	
\vdash	1	2	3	4	۲	2	2	

	Date		Outfall	Outfall Cu (ppb) ZN(ppb)	ZN(ppb)	TSS (ppm) pH	Hd	temp	temp TPH DRO TPH GRO NH3 COD BOD5 TOC (T)CU (T)Zn	TPH GRO	NH3	COD	BOD5	TOC	(T)CU	(T)Zn
H	12/12/2011 92495 003	92495 (203	71	143	74	7.4	17	<0.5	<0.5						
2	12/28/2012 92495 003	92495 (203	114	131	196	9.7		<0.5	<0.5						
3	10/31/2013 92495 003	92495 (203	358	694	376	7.8	7.8 27.2	0.7	<0.5						
4	11/4/2014 92495 003	92495 (203	780	641	182	6.8	6.8 14.7	9.0	<0.5						
2	2/12/2015 92495 003	92495 (203	256	1090	65	7.9	17.8	9.0	<0.5	0.97	40.15	3	4:54	4.68	1.08
	Average			215.8	539.8	178.6	7.5	7.5 19.2	0.6333333	i0/∧IG#	0.97	0.97 40.15	3	4.54	4.68	1.08
	Max	,		358	1090	376	7.9	7.9 27.2	0.7	0	0.97	0.97 40.15	3	4.54	4.68	1.08
	Min			71	131	9	8.9	6.8 14.7	<0.5	0	0.97	40.15	3	4.54	4.68	1.08

L	Date		Outfall	Outfall Cu (ppb) ZN(ppb)	ZN(ppb)	TSS (ppm)	Hd	temp	TSS (ppm) pH temp TPH DRO TPH GRO NH3 COD BODS TOC (T)CU (T)Zn	TPH GRO	NH3	COD	BOD5	TOC	(T)CU	(T)Zn
	11/7/2012 92495 004	92495	004	33	68	30	7.4	7.4 16.8	6:0	<0.5						
2	10/4/2013 92495 004	92495	004	179	52.3	121	7.5	7.5 25.2	9:0	<0.5						
3	9/26/2014 92495 004	92495	004	1695	915	485	7	20.3	<0.5	<0.5						
Ĺ	Average			635.6667	239.1	212	7.3	7.3 20.8	0.75	<0.5	####		#### #DIV/0i #### #DIN/0i	#####		#####
L	Max	, 1		1695	276	485	7.5	7.5 25.2	6:0	<0.5	0	0	0	0	0	0
L	Min			33	52.3	30	7	16.8	<0.5	<0.5	0	0	0	0	0	0



Universal Laboratories 20 Research Drive Hampton, VA 23666

Phone: 1-800-695-2162

Client Report For:

Lyon Shipyard Inc.

Attention:

Mr. Dan Terry

Client Address:

P.O. Box 2180

Norfolk, VA 23501

Project:

VPDES Permit Application Norfolk

Order Number:

1502170

Report Date:

03/09/2015

Lab Receipt Date:

02/13/2015

Comment:

This report contains the analytical results for the indicated Project and Order. The results contained in this report relate only to the samples identified in this Order. The analytical results meet all requirements of NELAC unless specifically stated. This

report shall not be reproduced except in full.

The data in this report has been reviewed and validated by:

Carol Kleemeier
Prest Tech Director

Universal Laboratories

003 DNT

Client: Lyon Shipyard Inc.

Lab ID: 1502170-001

Client Sample ID: OF-002-Grab

Collection Date: 02/12/2015 15:23

Matrix: AQUEOUS

<u>Analyses</u>

Ammonia as N, Total	EPA 350.1						
	Test Result	<u>Unit</u>	RL	Analysis Date	Analysis By	Qualifier	Cert #
Ammonia as N	0.97	mg/L	0.2	02/16/2015 16:55	EK		460036
Biochemical Oxygen Demand (BOD) 5 Day	SM 5210 B (2011)						
	Test Result	<u>Unit</u>	RL	Analysis Date	Analysis By	Qualifier	Cert #
Biochemical Oxygen Demand	3	mg/L	2	02/18/2015 13:15	RB		460036
Chemical Oxygen Demand	HACH 8000						
	Test Result	<u>Unit</u>	<u>RL</u>	Analysis Date	Analysis By	Qualifier	Cert #
Chemical Oxygen Demand	40.15	mg/L	20	02/19/2015 14:28	EK		460036
Metals by ICP	EPA 200.7						
	Test Result	<u>Unit</u>	<u>RL</u>	Analysis Date	Analysis By	Qualifier	Cert #
Copper, Total	4.68	mg/L	0.001	02/19/2015 18:51	LS		460036
Zinc, Total	1.08	mg/L	0.005	02/19/2015 18:51	LS		460036
Organic Carbon, Total							
	Test Result	<u>Unit</u>	RL	<u>Analysis Date</u>	Analysis By	Qualifier	Cert #
Sub Lab Name	Microbac OVD						
Organic Carbon, Total	Attached						

•	Blossary of Terms and Abbreviations
В	Analyte was found in the method blank
D	RPD outside acceptable limits
Н	Holding time exceeded
IS	Internal standard outside acceptable limits
J	Result above calibration curve - results are approximate
L.	LCS Outside acceptable limits
MI	Matrix interence
MS	Matrix spike recovery outside acceptable limits
QC	Method QC criteria not met
S	Surrogate outside acceptable limits
V	ICV/CCV/FCV outside acceptable limits
Calibration Verfication (Initial, Continuing, or Final)	A standard analyzed at different times to verify that the initial calibration curve is still valid.
Holding Time	The maximum time that samples may be held prior to analysis and still be considered valid or not compromised.
Internal Standard	A known amount of standard added to a test portion of a sample as a reference for evaluating and controlling the precision and bias of the applied analytical method.
LCS (Laboratory Control Sample)	A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
Method Blank	A sample of a matrix similar to the batch associated samples (when available) that is free from the analytes of interest and is processed simulatanously with and under the same conditions as samples.
MS/MSD (Matrix Spike or Matrix Spike Duplicate)	A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analytes concentration is available. Matrix Spikes are used, for example, to determine the effect of the matrix on a method's recovery efficiency.
RL (Reporting Limit)	The minimum levels, concentrations, or quantities of a target analyte that can be reported within a specified degree of confidence. Generally, this number is equal to or just above the lowest calibration standard run with the analytical batch.
RPD (Relative Percent Difference)	The difference between a set of duplicates or sample spike duplicates.
Surrogate	A substance with properties that mimic the analyte of interest. It is unlikely to be found in environmental samples and is added to them for quality control purposes in Organics.





Laboratory Report Number: L15021349

Dan Thornton Universal Labs 20 Research Drive Hampton, VA 23666

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories. Review and compilation of your report was completed by Microbac's Ohio Valley Division (OVD). If you have any questions, comments, or require further assistance regarding this report, please contact your service representative listed below.

Laboratory Contact: Emily Yoak – Client Services Specialist (740) 373-4071 emily.yoak@microbac.com

I certify that all test results meet all of the requirements of the accrediting authority listed below. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories. The reported results are related only to the samples analyzed as received.

This report was certified on March 05 2015

Varlenberg

David Vandenberg - Managing Director

State of Origin: NC

Accrediting Authority: Department of the Environment and Natural Resources ID:583

QAPP: Microbac OVD





Microbac Laboratories * Ohio Valley Division 158 Starlite Drive, Marietta, OH 45750 * T: (740) 373-4071 F: (740) 373-4835 * www.microbac.com



Discrepancy

Lab Project #: 115021349
Lab Project #: 3137.001
Project Name: Universal Labs
Lab Contact: Emily Yoak

Resolution

Generated: 03/05/2015 12:45

Record of Sample Receipt and Inspection

Comments/Discrepancies

This is the record of the shipment conditions and the inspection records for the samples received and reported as a sample delivery group (SDG). All of the samples were inspected and observed to conform to our receipt policies, except as noted below.

There were no discrepancies.

Coolers					
Cooler #	Temperature Gun	Temperature	COC#	Airbill #	Temp Required?
Styro		0.0		1001891713610004575000772983774331	X

# -	Question	Result
1	Were shipping coolers sealed?	Yes
2	Were custody seals intact?	Yes
3	Were cooler temperatures in range of 0-6?	Yes
4	Was ice present?	Yes
5	Were COC's received/information complete/signed and dated?	Yes
6	Were sample containers intact and match COC?	Yes
7	Were sample labels intact and match COC?	Yes
8	Were the correct containers and volumes received?	Yes
9	Were samples received within EPA hold times?	Yes
10	Were correct preservatives used? (water only)	Yes
11	Were pH ranges acceptable? (voa's excluded)	Yes
12	Were VOA samples free of headspace (less than 6mm)?	NA

Microbac Laboratories ● Ohio Valley Division 158 Starlite Drive, Marietta, OH 45750 ● T: (740)373-4071 F: (740)373-4835 www.microbac.com

Microbac

Lab Project #: 215021349
Lab Project #: 3137.001
Project Name: Universal Labs
Lab Contact: Emily Yoak

Samples Received			
Client ID	Laboratory ID	Date Collected	Date Received
1502170-001D	L15021349-01	02/12/2015 15:23	02/26/2015 11:12

Microbac Laboratories ● Ohio Valley Division 158 Starlite Drive, Marietta, OH 45750 ● T: (740)373-4071 F: (740)373-4835 www.microbac.com



Universal Laboratories 20 Research Drive Hampton, VA 23666

Phone: 1-800-695-2162

Client Report For:

Lyon Shipyard Inc.

Attention:

Mr. Dan Terry

Client Address:

P.O. Box 2180

Norfolk, VA 23501

Project:

VPDES Permit Application Norfolk

Order Number:

1502170

Report Date:

03/09/2015

Lab Receipt Date:

02/13/2015

Comment:

This report contains the analytical results for the indicated Project and Order. The results contained in this report relate only to the samples identified in this Order. The analytical results meet all requirements of NELAC unless specifically stated. This

report shall not be reproduced except in full.

The data in this report has been reviewed and validated by:

O:

Nama

Mes/Tech Duentos

Title

Universal Laboratories

Client: Lyon Shipyard Inc.

Lab ID: 1502170-001

OOS DIJT

Client Sample ID: OF-002-Grab

Collection Date: 02/12/2015 15:23

Matrix: AQUEOUS

<u>Analyses</u>

Ammonia as N, Total	EPA 350.1						
	Test Result	<u>Unit</u>	RL	<u>Analysis Date</u>	<u>Analysis By</u>	Qualifier	Cert #
Ammonia as N	0.97	mg/L	0.2	02/16/2015 16:55	EK		460036
Biochemical Oxygen Demand (BOD) 5 Day	SM 5210 B (2011)						
	Test Result	<u>Unit</u>	RL	Analysis Date	Analysis By	Qualifier	Cert #
Biochemical Oxygen Demand	3	mg/L	2	02/18/2015 13:15	RB		460036
Chemical Oxygen Demand	HACH 8000						
	Test Result	<u>Unit</u>	RL	<u>Analysis Date</u>	Analysis By	Qualifier	Cert #
Chemical Oxygen Demand	40.15	mg/L	20	02/19/2015 14:28	EK		460036
Mętals by ICP	EPA 200.7						
	Test Result	<u>Unit</u>	RL	<u>Analysis Date</u>	Analysis By	Qualifier	Cert #
Copper, Total	4.68	mg/L	0.001	02/19/2015 18:51	LS		460036
Zinc, Total	1.08	mg/L	0.005	02/19/2015 18:51	LS		460036
Organic Carbon, Total							
	Test Result	<u>Unit</u>	<u>RL</u>	<u>Analysis Date</u>	<u>Analysis By</u>	Qualifier	Cert #
Sub Lab Name	Microbac OVD						
Organic Carbon, Total	Attached					-	

Method Blank A sample of a matrix similar to the batch associated samples (when available) that is free from the analytes of interest and is processed simulatanously with and under the same conditions as samples. MS/MSD A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analytes concentration is available. Matrix Spikes are used, for example, to determine the effect of the matrix on a method's recovery		Glossary of Terms and Abbreviations
Holding time exceeeded IS Internal standard outside acceptable limits J Result above calibration curve - results are approximate L LCS Outside acceptable limits MI Matrix interence MS Matrix spike recovery outside acceptable limits QC Method QC criteria not met S Surrogate outside acceptable limits V ICV/CCV/FCV outside acceptable limits A standard analyzed at different times to verify that the initial calibration curve is still valid. Internal Standard The maximum time that samples may be held prior to analysis and still be considered valid or not compromised. A known amount of standard added to a test portion of a sample as a reference for evaluating and controlling the precision and bias of the applied analytical method. LCS (Laboratory Control Sample) Method Blank A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. MS/MSD A sample of a matrix similar to the batch associated samples (when available) that is free from the analytes of interest and is processed simulatanously with and under the same conditions as samples. MS/MSD A sample prepared by adding a known mass of target analytes concentration is available. Matrix Spike are used, for example, to determine the effect of the matrix on a method's recovery	В	Analyte was found in the method blank
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(Matrix Spike or Matrix Spike sample for which an independent estimate of target analytes concentration is available. Matrix Spikes are used, for example, to determine the effect of the matrix on a method's recovery	Method Blank	the analytes of interest and is processed simulatanously with and under the same conditions as
	(Matrix Spike or Matrix Spike	sample for which an independent estimate of target analytes concentration is available. Matrix
RL (Reporting Limit) The minimum levels, concentrations, or quantities of a target analyte that can be reported within a specified degree of confidence. Generally, this number is equal to or just above the lowest calibration standard run with the analytical batch.		a specified degree of confidence. Generally, this number is equal to or just above the lowest
RPD The difference between a set of duplicates or sample spike duplicates. (Relative Percent Difference)	RPD (Relative Percent Difference)	The difference between a set of duplicates or sample spike duplicates.
Surrogate A substance with properties that mimic the analyte of interest. It is unlikely to be found in environmental samples and is added to them for quality control purposes in Organics.	Surrogate	



Laboratory Report Number: L15021349

Dan Thornton Universal Labs 20 Research Drive Hampton, VA 23666

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories. Review and compilation of your report was completed by Microbac's Ohio Valley Division (OVD). If you have any questions, comments, or require further assistance regarding this report, please contact your service representative listed below.

Laboratory Contact: Emily Yoak – Client Services Specialist (740) 373-4071 emily.yoak@microbac.com

I certify that all test results meet all of the requirements of the accrediting authority listed below. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories. The reported results are related only to the samples analyzed as received.

This report was certified on March 05 2015

David E. Vandenberg

David Vandenberg - Managing Director

State of Origin: NC

Accrediting Authority: Department of the Environment and Natural Resources ID:583

QAPP: Microbac OVD





Microbac Laboratories * Ohio Valley Division 158 Starlite Drive, Marietta, OH 45750 * T: (740) 373-4071 F: (740) 373-4835 * www.microbac.com



Lab Report #: L15021349

Lab Project #: 3137.001

Project Name: Universal Labs

Lab Contact: Emily Yoak

Record of Sample Receipt and Inspection

Comments/Discrepancies

This is the record of the shipment conditions and the inspection records for the samples received and reported as a sample delivery group (SDG). All of the samples were inspected and observed to conform to our receipt policies, except as noted below.

There were no discrepancies.

Discrepancy

Resolution

Coolers					
Cooler#	Temperature Gun	Temperature	COC#	Airbill #	Temp Required?
Styro	T.	0.0		1001891713610004575000772983774331	х

Inspection Checkli	st	
#	Question	Result
1	Were shipping coolers sealed?	Yes
2	Were custody seals intact?	Yes
3	Were cooler temperatures in range of 0-6?	Yes
4	Was ice present?	Yes
5	Were COC's received/information complete/signed and dated?	Yes
6	Were sample containers intact and match COC?	Yes
7	Were sample labels intact and match COC?	Yes
8	Were the correct containers and volumes received?	Yes
9	Were samples received within EPA hold times?	Yes
10	Were correct preservatives used? (water only)	Yes
11	Were pH ranges acceptable? (voa's excluded)	Yes
12	Were VOA samples free of headspace (less than 6mm)?	, NA

Microbac Laboratories • Ohio Valley Division 158 Starlite Drive, Marietta, OH 45750 • T: (740)373-4071 F: (740)373-4835 www.microbac.com Microbae

Lab Project #: 115021349

Lab Project #: 3137.001

Project Name: Universal Labs

Lab Contact: Emily Yoak

Samples Received

Client ID

Laboratory ID

Date Collected

Date Received

1502170-001D

L15021349-01

02/12/2015 15:23

02/26/2015 11:12

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Microbac

Lab Report #: L15021349 Lab Project #: 3137,001 Project Name: Universal Labs Lab Contact: Emily Yoak

Certificate of Analysis

Sample #: L15021349-01

PrePrep Method: N/A

Instrument: TOC-VWP

Client ID: 1502170-001D

Prep Method: SM5310-C-2000

Prep Date: N/A

Matrix: Water 2

Analytical Method: SM5310-C-2000

Workgroup #: WG513708

Analyst: EPT

Cal Date: 07/16/2014 12:00

Run Date: 02/27/2015 16:22

Collect Date: 02/12/2015 15:23

Dilution: 1

Sample Tag: 01

Units: mg/L

File ID: TC02272015.022

Analyte	CAS#	Result	Qual	RL	MDL
Total Organic Carbon	тос	4.54		1.00	0.500

Page 1 of 1

Generated at Mar 5, 2015 12:52

Microbac Laboratories Inc. Ohio Valley Division Analyst List March 5, 2015

001 - BIO-CHEM TESTING WVDEP 220	002 - REIC Consultants, Inc. WVDEP 060
003 - Sturm Environmental	
007 - ALS LABORATORIES	008 - BENCHMARK LABORATORIES
010 - MICROBAC CHICAGOLAND	ADC - ANTHONY D. CANTER
ADG - APRIL D. GREENE	AED - ALLEN E. DAVIS
ALS - ADRIANE L. STEED	AWE - ANDREW W. ESSIG
AZH - AFTER HOURS	BJO - BRIAN J. OGDEN
BKT - BRENDAN TORRENCE	BLG - BRENDA L. GREENWALT
BRG - BRENDA R. GREGORY	CAA - CASSIE A. AUGENSTEIN
CAF - CHERYL A. FLOWERS	CEB - CHAD E. BARNES
CJR - COURTNEY J. REXROAD	CLC - CHRYS L. CRAWFORD
CLS - CARA L. STRICKLER	CLW - CHARISSA L. WINTERS
CPD - CHAD P. DAVIS	CSH - CHRIS S. HILL
DAK - DEAN A. KETELSEN	DCM - DAVID C. MERCKLE
DEV - DAVID E. VANDENBERG	DIH - DEANNA I. HESSON
DLB - DAVID L. BUMGARNER	DLP - DOROTHY L. PAYNE
	DSM - DAVID S. MOSSOR
ECL - ERIC C. LAWSON	ENY - EMILY N. YOAK
	ERP - ERIN R. PORTER
FJB - FRANCES J. BOLDEN	JBK - JEREMY B. KINNEY
JDH - JUSTIN D. HESSON	JDS - JARED D. SMITH
JJS - JOHN J. STE MARIE	
	JMW - JEANA M. WHITE
JTP - JOSHUA T. PEMBERTON	JWR - JOHN W. RICHARDS
JWS - JACK W. SHEAVES	JYH - JI Y. HU
	KAT - KATHY A. TUCKER
	KEB - KATIE E. BARNES
	KKB - KERRI K. BUCK
KRA - KATHY R. ALBERTSON	
KRP - KATHY R. PARSONS	
LKN - LINDA K. NEDEFF	
	MBK - MORGAN B. KNOWLTON
MDA - MIKE D. ALBERTSON	MDC - MIKE D. COCHRAN
MES - MARY E. SCHILLING	MLB - MEGAN L. BACHE
	MRT - MICHELLE R. TAYLOR
MSW - MATT S. WILSON	
PIT - MICROBAC WARRENDALE	
PSW - PEGGY S. WEBB	QX - QIN XU
RAH - ROY A. HALSTEAD	REK - BOB E. KYER
RLB - BOB BUCHANAN	RM - RAYMOND MALEKE
RNP - RICK N. PETTY	RST - ROBIN S. TURNER
SAV - SARAH A. VANDENBERG SLM - STEPHANIE L. MOSSBURG	SDC - SHALYN D. CONLEY
	SLP - SHERI L. PFALZGRAF
TB - TODD BOYLE TMM - TAMMY M MORRIS	TMB - TIFFANY M. BAILEY
TMM - TAMMY M. MORRIS WJB - WILL J. BEASLEY	VC - VICKI COLLIER
WTD - WADE T. DELONG	WRR - WESLEY R. RICHARDS XXX - UNAVAILABLE OR SUBCONTRACT
WID WADE I. DEDONG	ANA UNAVAIDABLE ON SUDCONIRACI

Microbac Laboratories Inc. List of Valid Qualifiers March 05, 2015

Qualkey: STD

Qualifier`	<u>Description</u>
*	Surrogate or spike compound out of range
+	Correlation coefficient for the MSA is less than 0.995
< >	Result is less than the associated numerical value. Result is greater than the associated numerical value.
Ā	See the report narrative
В	Analyte present in method blank
B,H1	Analyte present in method blank. Sample analysis performed past holding time.
B1 B3	Target analyte detected in method blank at or above the method reporting limit Target analyte detected in calibration blank at or above the method reporting limit
B4	The BOD unseeded dilution water blank exceeded 0.2 mg/L
С	Confirmed by GC/MS
CG	Confluent growth
CT1 DL	The cooler temperature at receipt exceeded regulatory guidelines for requested testing. Surrogate or spike compound was diluted out
E	Estimated concentration due to sample matrix interference
EDL	Elevated sample reporting limits, presence of non-target analytes
EMPC	Estimated Maximum Possible Concentration
F, S F,CT1	Estimated result below quantitation limit; method of standard additions(MSA) Estimated value; the analyte concentration was less than the RL/LOQ. The cooler temperature at receipt exceeded regula
FL	Free Liquid
H1	Sample analysis performed past holding time.
H1,CT1	Sample analysis performed past holding time. The cooler temperature at receipt exceeded regulatory guidelines for reque
j	Semiquantitative result (out of instrument calibration range) Estimated value; the analyte concentration was less than the RL/LOQ.
J,B	Analyte detected in both the method blank and sample above the MDL.
J,CT1	Estimated value; the analyte concentration was less than the RL/LOQ.
J,CT1	Estimated value; the analyte concentration was less than the RL/LOQ. The cooler temperature at receipt exceeded regula
J,P J,S	Estimate; columns don't agree to within 40% Estimated concentration; analyzed by method of standard addition (MSA)
L L	Sample reporting limits elevated due to matrix interference
L1	The associated blank spike (LCS) recovery was above the laboratory acceptance limits.
L2	The associated blank spike (LCS) recovery was below the laboratory acceptance limits.
M N	Matrix effect; the concentration is an estimate due to matrix effect. Tentatively identified compound(TIC)
NA	Not applicable
ND	Not detected at or above the reporting limit (RL/MDL).
ND, B	Not detected at or above the reporting limit (RL). Analyte present in method blank.
ND, CT1 ND, L	Analyte was not detected. The concentration is below the reported LOD. The cooler temperature at receipt exceeded reg Not detected; sample reporting limit (RL) elevated due to interference
ND, S	Not detected; analyzed by method of standard addition (MSA)
ND,H1	Not detected, Sample analysis performed past holding time.
ND,H1,CT1 NF	Not detected; Sample analysis performed past holding time. The cooler temperature at receipt exceeded regulatory guide
NFL	Not found by library search No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS P	Not spiked Concentrations >40% difference between the two GC columns
ά	One or more quality control criteria failed. See narrative.
QNS	Quantity of sample not sufficient to perform analysis
RA DE	Reanalysis confirms reported results
RE S	Reanalysis confirms sample matrix interference Analyzed by method of standard addition (MSA)
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TIC TNTC	Library Search Compound
TNTC, B	Too numerous to count Too numerous to count. Analyte present in method blank.
TNTC,CT1	Too numerous to count. The cooler temperature at receipt exceeded regulatory guidelines for requested testing.
TNTC,H1	Too numerous to count. Sample analysis performed past holding time.
N) N	Analyte was not detected. The concentration is below the reported MDL.
UQ	Undetected; the MDL and RL are estimated due to quality control discrepancies. Undetected; the analyte was analyzed for, but not detected.
W	Post-digestion spike for furnace AA out of control limits
X	Exceeds regulatory limit
X, S Z	Exceeds regulatory limit; method of standard additions (MSA) Cannot be resolved from isomer - see below
~	Carrier be received from facilities - See below



"Jed 2-24-15 55 20 Research Drive Hampton, VA 23666 Sample Time 221000066096 UL Contact: Dan Thornton Phone: 757-865-0880 VANC 02/19/2015 7:28AM 02/12/2015 3:23PM 02/23/2015 4:22PM 02/23/2015 4:51PM 02/23/2015 3:45PM 02/23/2015 5:19PM Fax: 757-865-8014 Sample Date Cooler Temp: Preservation: Received: 02/26/2015 11:12 By: BRENDA GREGORY . - Bunda Bugan Microbac OVD Matrix Aqueous Aqueous Aqueous Aqueous Aqueous Aqueous Subcontract Chain of Custody Universal Laboratories Organic Carbon, Total Test Separately SUB PO Number: 022415-005 Date/Time regrent Sample Location EH Effluent 001 Grab Nease OF-002 Grab Refinquish By MW-2 MW-3 MW-4 MW-1 To: Sample Receiving Comments: Sample # 1502386-001D 1502386-002D Microbac OVD 1502170-001D 1502340-001C 1502386-003D 1502386-004D vi

Page 7

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Stree Company	5	Company Street/Box	City/State	22 euou-	Contact: 1	Job No.		10t Fa.1	A MA 2 110	13.3		-							

e Approval			[1] [1] [1] [1] [1] [1] [1] [1] [1] [1]	Gran Comp		/ Composite Oton	doin posite otop	
Express Service Approval_	Order No.	Delivery Order			Shipping/Delivery Charges	Composite Start		
Disposal: Lab ☐ Client ☐ Charge ☐	Date/Time/ >> [Work Order No.	Date/Time co Delive		4/3/15 72>	Saturde / Shippi	Date/Time Compo	Date/Time	
Bel DOS BACK COLOR	Y Lyon Shiguach	2 K	7	Carl "		-		
	Company C	Mary Company a	LAM Company	Company	W The state of the	Company	Company	

Signature Signature

Relinquished By

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Possible Hazards: Relinquished By

Comments:

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Due Date: _

	EPA I.D. NUMBER (copy from Item 1 of Form 1)	
Please print or type in the unshaded areas only	VAD003177003	

New Sources and New Dischargers

NPDES	WE.	I		Appli	cation	for Pern	nit to D	ischarge	Process Wastewater
I. Outfall Lo	cation								
For each out	tfall, list t	the latitude	and longitud	de of its loca	ation to the	nearest 15 s	seconds and	the name of t	the receiving water.
, Outfall Nu	ımber		Latitude			Longitude		Receiving Wa	ater (<i>name</i>)
(list)		Deg.	Min.	Sec.	Deg.	Min.	Sec.		
005		36	84	15	-76	26	81		nch Elizabeth River
ll Disabassa	- D-4- ()	A 8		t: dit-				<u>L</u>	
II. Discharge	e Date (\	/vnen ao yo	ou expect to	vegin aisch	arging?)				
III. Flows, Se									
wastew	ater, coo	oling water,	a description and storm dditional she	water runof	f; (2) The a	s contributir average flow	g wastewa contributed	ter to the efflu I by each oper	uent, including process wastewater, sanitary ation; and (3) The treatment received by the
Outfall Number			ions Contrib				Average Flo		3. Treatment (Description or List codes from Table 2D-1)
005	Wat	erwashi	ng, ball	ast wate	er 535	GPD			4-A
			-						
1									
									·
			***************************************	***************************************					,

			•						RECEIVED - DEQ
									MAY 2 6 2015
									Tidewater Regional
				·····					Office
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effluent, and by showing	e drawing showing the I treatment units labele average flows betweer ties), provide a pictoria	d to correspond to the n intakes, operations, to	more de reatmen	etailed descriptions in t units, and outfalls.	n Item III-A. Construct If a water balance of	ct a water balance o annot be determine	n the line drawing d (e.g., for certain
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	torm runoff, leaks, or sp S (<i>complete the followi</i>		harges (described in Items III		seasonal?	
			1. Fred	quency		2. Flow	
ī	Outfall Number	a. Day Per We (specify av	ys eek	b. Months Per Year (specify average)	a. Maximum Daily Flow Rate (in mgd)	b. Maximum Total Volume (specify with units)	c. Duration (in days)
005		0.307 da	-	0.526 months per year	0.035	0.035	2
\$							
production level	oplicable production-ba , not design), expresso duction is likely to vary	ed in the terms and ur	nits used	f in the applicable e	ffluent auideline or N	rel of production (pr NSPS, for each of th	ojection of actual ne first 3 years of
Year	A. Quantity Per Day	B. Units Of Measure		c. One	eration, Product, Mat	erial, etc. (specify)	
NA	NA NA	NA	NA	<u></u>	,	over (about)	
•							

CONTINUED FROM THE FRONT	EPA I.D. NUM VAD00317'	BER (copy from Item 1 7003	of Form 1)	Outfall Number 005			
V. Effluent Characteristics							
A and B: These items require you to report estimated amounts (both concentration and mass) of the pollutants to be discharged from each of your outfalls. Each part of this item addresses a different set of pollutants and should be completed in accordance with the specific instructions for that part. Data for each outfall should be on a separate page. Attach additional sheets of paper if necessary.							
for all pollutants in Group A, for all outfalls	ovide an estimated d s, must be submitted which you believe v	unless waived by th	e permitting auth	n pollutants and the source of information. Data ority. For all outfalls, data for pollutants in Group by an effluent limitations guideline or NSPS or			
1. Pollutant	2. Maximum Daily Value (include units)	3. Average Daily Value (include units)		4. Source (see instructions)			
BOD	3 mg/L	3 mg/L	3				
COD	40.15 mg/L	40.15 mg/L	3				
TOC	4.54 mg/L	4.54 mg/L	3				
TSS	376 mg/L	178.6 mg/L	3				
NH3	0.97 mg/L	0.97 mg/L	3				
Temp (winter)	27.2 C	18.7 C	3 .				
Temp (summer)	30.0 C	20.0 C	3				
Нд	7.9 su	7.5 su	3				
Total Cu	4.68 mg/L	4.68 mg/L	3				
Total Zn	1.08 mg/L	1.08 mg/L	3				
				:			
		,					

CONTINUED FROM THE FRONT	EPA I.D. NUMBER (copy from Item 1 of Form 1) VAD003177003
Use the space below to list any of the poll discharged from any outfall. For every pollute	utants listed in Table 2D-3 of the instructions which you know or have reason to believe will be ant you list, briefly describe the reasons you believe it will be present.
1. Pollutant	2. Reason for Discharge
Not believed to present	
VI. Engineering Report on Wastewater Treatm	nent .
A. If there is any technical evaluation concer	rning your wastewater treatment, including engineering reports or pilot plant studies, check the
appropriate box below. Report Available	✓ No Report
B. Provide the name and location of any existi production processes, wastewater constituent	ing plant(s) which, to the best of your knowledge resembles this production facility with respect to nts, or wastewater treatments.
l l	Location Lyon Shipyard 1818 Brown Ave Norfolk VA 23501

EPA I.D. NUMBER (copy from Item 1 of Form 1) VAD003177003

VII. Other Information (Optional)

Use the space below to expand upon any of the above questions or to bring to the attention of the reviewer any other information you feel should be considered in establishing permit limitations for the proposed facility. Attach additional sheets if necessary.

Lyon Shipyard is applying for new outfalls for storm water and process water discharge for the current permit under review. These outfalls will be assigned to a new dry-dock that Lyon shipyard is interested in obtaining. For numbering purposes and to correspond with numbering sequence of current outfalls, 005 and 905 are proposed for new outfalls. All process water is projected to be collected and sent off site for proper disposal upon completion of the collection system. It is estimated that the collection system will be installed within the first six months of having the dry dock onsite. The dry-dock is foreseen to be similar in the engineering aspects as our current dry-dock (DD#2 outfall 001 and 901- VA0092495). A grate system with a pump will be used to collect water washing events. A tank will be used to store process water onsite until removed my contractor for offsite disposal. Attached is the process water collected from our current dry-dock operations and expect similar quantities for the proposed outfall.

VIII. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

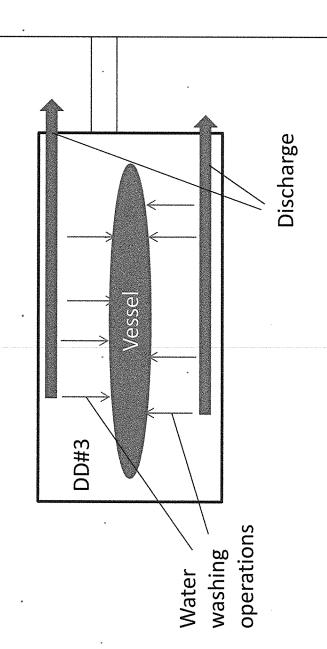
A. Name and Official Title (type or print)	B. Phone No.
Dar form	757-323-2599
C/Signature /	D. Date Signed
1/20 41. Can	05/20/15

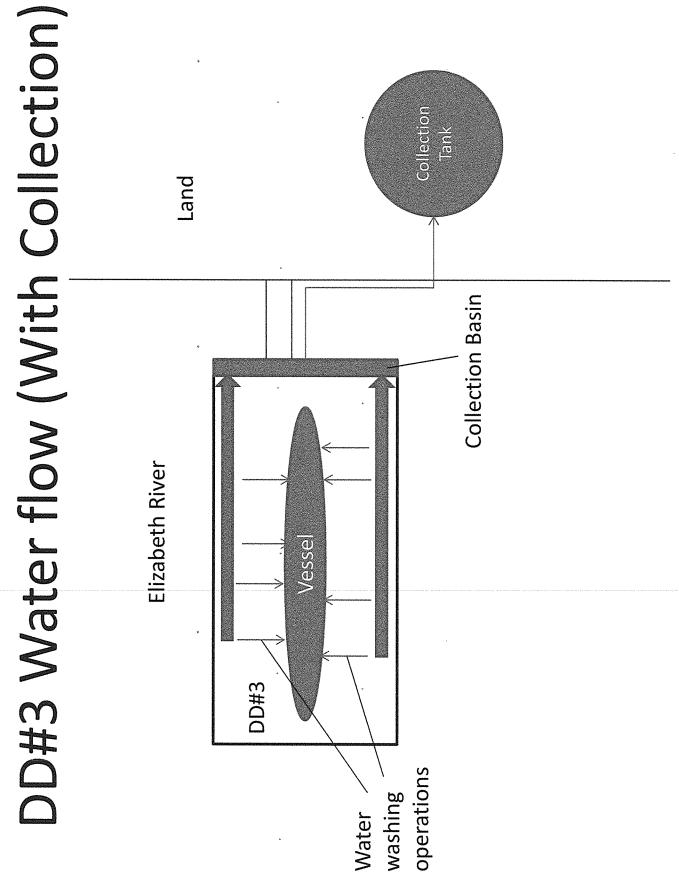
EPA Form 3510-2D (Rev. 8-90)

DD#3 Water flow (No Collection)

Land

Elizabeth River





Form Approved. OMB No. 2040-0086 Approval expires 5-31-92



U.S. Environmental Protection Agency Washington, DC 20460

Application for Permit to Discharge Storm Water Discharges Associated with Industrial Activity

Paperwork Reduction Act Notice

Public reporting burden for this application is estimated to average 28.6 hours per application, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate, any other aspect of this collection of information, or suggestions for improving this form, including suggestions which may increase or reduce this burden to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, Washington, DC 20460, or Director, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

Outfall Location

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water

A. Outfall Number (list)		B. Latitude			C. Longitude		D. Receiving Water (<i>name</i>)
901	36.00	841.00	620.00	-76.00	269.00	451.00	Eastern Branch of Elizabeth River
902	36.00	841.00	967.00	-76.00	269.00	272.00	Eastern Branch of Elizabeth River
903	36.00	842.00	334.00	-76.00	267.00	469.00	Eastern Branch of Elizabeth River
904	36.00	842.00	372.00	-76.00	266.00	442.00	Eastern Branch of Elizabeth River
006	36.00	841.00	390.00	-76.00	270.00	620.00	Eastern Branch of Elizabeth River
009	36.00	842.00	196.00	-76.00	267.00	438.00	Eastern Branch of Elizabeth River
011	36.00	843.00	32.00	-76.00	267.00	438.00	Eastern Branch of Elizabeth River
008	36.00	842.00	199.00	-76.00	268.00	968.00	Eastern Branch of Elizabeth River
012	36.00	843.00	198.00	-76.00	266.00	903.00	Eastern Branch of Elizabeth River
See next page >							

II. Improvements

A. Are you now required by any Federal, State, or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

1. Identification of Conditions,		2. Affected Outfalls		4. Final Compliance Date		
Agreements, Etc.	number	source of discharge	Brief Description of Project	a. req.	b. proj.	
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B: You may attach additional sheets describing any additional water pollution (or other environmental projects which may affect your discharges) you now have under way or which you plan. Indicate whether each program is now under way or planned, and indicate your actual or planned schedules for construction.

III. Site Drainage Map

Attach a site map showing topography (or indicating the outline of drainage areas served by the outfalls(s) covered in the application if a topographic map is unavailable) depicting the facility including: each of its intake and discharge structures; the drainage area of each storm water outfall; paved areas and buildings within the drainage area of each storm water outfall, each known past or present areas used for outdoor storage of disposal of significant materials, each existing structural control measure to reduce pollutants in storm water runoff, materials loading and access areas, areas where pesticides, herbicides, soil conditioners and fertilizers are applied; each of its hazardous waste treatment, storage or disposal units (including each area not required to have a RCRA permit which is used for accumulating hazardous waste under 40 CFR 262.34); each well where fluids from the facility are injected underground; springs, and other surface water bodies which received storm water discharges from the facility.

Please print or type in the unshaded areas only.



U.S. Environmental Protection Agency Washington, DC 20460

Application for Permit to Discharge Storm Water **Discharges Associated with Industrial Activity**

Paperwork Reduction Act Notice

Public reporting burden for this application is estimated to average 28.6 hours per application, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate, any other aspect of this collection of information, or suggestions for improving this form, including suggestions which may increase or reduce this burden to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, Washington, DC 20460, or Director, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

Outfall Location For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water. A. Outfall Number D. Receiving Water (list) B. Latitude C. Longitude (name) 013 36.00 842.00 915.00 -76.00 266.00 814.00 Eastern Branch of Elizabeth River 0.00 0.00 0.00 0.00 See Narrative 010 0.00 0.00 007 0.00 0.00 0.00 0.00 0.00 0.00 See Narrative

II. Improvements

Are you now required by any Federal, State, or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

		·				
Identification of Conditions,	2	2. Affected Outfalls		4. Final Compliance Date		
Agreements, Etc.	number source of discharge		Brief Description of Project	a. req.	b. proj.	
None						

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	-					

B: You may attach additional sheets describing any additional water pollution (or other environmental projects which may affect your discharges) you now have under way or which you plan. Indicate whether each program is now under way or planned, and indicate your actual or planned schedules for construction.

III. Site Drainage Map

Attach a site map showing topography (or indicating the outline of drainage areas served by the outfalls(s) covered in the application if a topographic map is unavailable) depicting the facility including: each of its intake and discharge structures; the drainage area of each storm water outfall; paved areas and buildings within the drainage area of each storm water outfall, each known past or present areas used for outdoor storage of disposal of significant materials, each existing structural control measure to reduce pollutants in storm water runoff, materials loading and access areas, areas where pesticides, herbicides, soil conditioners and fertilizers are applied; each of its hazardous waste treatment, storage or disposal units (including each area not required to have a RCRA permit which is used for accumulating hazardous waste under 40 CFR 262.34); each well where fluids from the facility are injected underground; springs, and other surface water bodies which received storm water discharges from the facility.

IV. Narrative Description of Pollutant Sources

A. For each outfall, provide an estimate of the area (include units) of imperious surfaces (including paved areas and building roofs) drained to the outfall, and an estimate of the total surface area drained by the outfall.

Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)	Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)	
901 902 903 904 006	Approx. 31,875 sqft Approx. 67,525 sqft Approx. 18,675 sqft Approx. 0 sqft Approx. 244,400 sqft	Ap 31,875 sqft Ap 67,525 sqft Ap 18,525 sqft AP 150,524 sqft Ap 244,400 sqft	011 013 008	Approx. 71,675 sqft Approx. 52,775 sqft Approx. 2,000 sqft Approx. 40,800 sqft Approx. 2,000 sqft	Ap. 71,675 sqft Ap. 152,775 sqft Ap. 2,000 sqft AP. 40,800 sqft AP. 2000 sqft	

B. Provide a narrative description of significant materials that are currently or in the past three years have been treated, stored or disposed in a manner to allow exposure to storm water; method of treatment, storage, or disposal; past and present materials management practices employed to minimize contact by these materials with storm water runoff; materials loading and access areas, and the location, manner, and frequency in which pesticides, herbicides, soil conditioners, and fertilizers are applied.

Shipyard spent abrasives- materials are stored in bins on property for hauling to approved sites as needed. Maritime paints- minimal amount of paint is placed on site to allow for appliction. Paint waste is drummed and disposed of as Hazardeous waste. Paint cans are emptied and hauled to approved sites. Materials that are ordered are logged by recieving and generally stored inside warehouse(s) prior to job delivery.

007- (NOT LISTED ABOVE)Is inactive. Was a previous city stormdrain that does not drain to recieving waters. Rather the entire flow goes to outfall 008. Industrial activity around the outfall consist of moving vechicles and equipment.

010- (NOT LISTED ABOVE) This outfall was placed into the permit based upon a project that was never completed nor will be. The outfall was going to be a drain to discharge to recieving waters. The location of the drain is aprox 10ft away from Jones slip and approx 20ft away from Grace bulkhead on the west side of the property. The drain was placed into operation and was connected to outfall 006 for discharge. There are no future plans to change the current arrangement of pipes.

C. For each outfall, provide the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of the treatment the storm water receives, including the schedule and type of maintenance for control and treatment measures and the ultimate disposal of any solid or fluid wastes other than by discharge.

Outfall Number Treatment	List Codes from Table 2F-1
01,902, BMPs are required by existing permit. Facility has SWPPP as a condition as the permit 03,904, 06,009, 11,008, 12,013	4-C

V. Nonstormwater Discharges

A. I certify under penalty of law hat the outfall(s) covered by this application have been tested or evaluated for the presence of nonstormwater discharge	es, and that all
nonstormwater discharged from these outfall(s) are identified in either an accompanying Form 2C or From 2E application for the outfall.	

Name and Official Title (type or print)

Dan Terry

Date Signature

20 MAR 15

B. Provide a description of the method used, the date of any testing, and the onsite drainage points that were directly observed during a test.

VI. Significant Leaks or Spills

Provide existing information regarding the history of significant leaks or spills of toxic or hazardous pollutants at the facility in the last three years, including the approximate date and location of the spill or leak, and the type and amount of material released.

NA

VII. Discharge Information									
i i	A, B, C, & D: See instructions before proceeding. Complete one set of tables for each outfall. Annotate the outfall number in the space provided. Table VII-A, VII-B, VII-C are included on separate sheets numbers VII-1 and VII-2.								
E. Potential discharges not covered by analysis – is any toxic pollutant listed in table 2F-2, 2F-3, or 2F-4, a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?									
✓ Yes (list all such pollutants t	pelow)		No (go to Section IX)						
Total Cu Total Zn									
7774									
VIII. Biological Toxicity Testing I									
Do you have any knowledge or reason to relation to your discharge within the last 3 Yes (list all such pollutants b		xicity h	as been made on any of you	discharges or on a receiving water in					
	ments acute toxicity test is performed	for o		903. Both shrimp and minnows					
are utilizeu.	re utilized.								
IX. Contract Analysis Information Were any of the analyses reported in Item	Note that the second seco	firm?							
	and telephone number of, and pollutants laboratory or firm below)		No (go to Section X)						
A. Name	B. Address		. Area Code & Phone No.	D. Pollutants Analyzed					
Universal Laboratories	220 Research Drive Hampton, VA 23666	75	7-865-0880	TSS, TPH,Toxicity,Dissolved Cu and Zn.					

X. Certification									
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.									
A. Name & Official Title (Type Or Print) Da. at Terry			a Code and Phone No.						
C. Signature			-323-2599 e Signed						
La Unta			AR15						

EPA Form 3510-2F (1-92)

Part A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

	Maximum Values Average Values (include units) (include units)		Number			
Pollutant and CAS Number (if available)	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	of Storm Events Sampled	Sources of Pollutants
Oil and Grease	<5.0 mg/L	N/A			1.00	
Biological Oxygen Demand (BOD5)	>108 mg/L				1.00	
Chemical Oxygen Demand (COD)	258.2 mg/L				1.00	
Total Suspended Solids (TSS)			67.06 mg/L		18.00	
Total Nitrogen	2.8 mg/L				1.00	
Total Phosphorus	0.24 mg/L	÷			1.00	-
рН	Minimum	Maximum	Minimum 6.70	Maximum 7.50	17.00	

	Maximum Values Average (include units) (include		age Values lude units)	Number		
Pollutant and CAS Number (if available)	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	of Storm Events Sampled	Sources of Pollutants
Dissolved Cu			526.72 ug/L		18.00	
Dissolved Zn			1633.72 ug/		18.00	

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Part A – You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

		num Values lude units)		erage Values clude units)	Number	umber	
Pollutant and CAS Number (if available)	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	of Storm Events Sampled	Sources of Pollutants	
Oil and Grease	<5.0 mg/L	N/A			1.00		
Biological Oxygen Demand (BOD5)	13 mg/L				1.00		
Chemical Oxygen Demand (COD)	72.98 mg/L				1.00		
Total Suspended Solids (TSS)	76.0 mg/L		35.8 mg/L		4.00		
Total Nitrogen	2.3 mg/L		j		1.00		
Total Phosphorus	0.08 mg/L				1.00		
pН	Minimum	Maximum	Minimum 6.90	Maximum 7.40	5.00		

requ	irements.		т			T
	(inclu	um Values ude units)	Ave (in	erage Values clude units)	Number	
Pollutant and CAS Number (if available)	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	of Storm Events Sampled	Sources of Pollutants
Dissolved Cu	222 ug/L		138.25 ug/L		4.00	
Dissolved Zn	396 ug/L		269.25 ug/L		4.00	
						
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Part A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

		um Values ude units)		rage Values clude units)	Number	Number	
Pollutant and CAS Number (if available)	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	of Storm Events Sampled	Sources of Pollutants	
Фil and Grease	<5.0 mg/L	N/A			1.00		
Biological Oxygen Demand (BOD5)	13 mg/L				1.00		
Chemical Oxygen Demand (COD)	72.98 mg/L				1.00		
Total Suspended Solids (TSS)	561 mg/L	Ž	217.75 mg/L		4.00		
Total Nitrogen	2.3 mg/L				1.00		
Total Phosphorus	0.08 mg/L				1.00		
pH	Minimum	Maximum	Minimum 6.90	Maximum 7.70	4.00		

	Maximum Values (include units)		Ave (inc	rage Values clude units)	Number	
Pollutant and CAS Number (if available)	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	of Storm Events Sampled	Sources of Pollutants
Dissolved Cu	592 ug/L		249 ug/L		4.00	
Dissolved Zn	587 ug/L		264.25 ug/L		4.00	
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Part A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

		um Values ide units)		erage Values clude units)	Number	
Pollutant and CAS Number (if available)	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	of Storm Events Sampled	Sources of Pollutants
Oil and Grease	<5.0 mg/L	N/A			1.00	
Biological Oxygen Demand (BOD5)	13 mg/L				1.00	
Chemical Oxygen Demand (COD)	72.98 mg/L				1.00	
Total Suspended Solids (TSS)	561 mg/L		217.75 mg/L		4.00	
Total Nitrogen	2.3 mg/L				1.00	
Total Phosphorus	0.08 mg/L	,			1.00	
pН	Minimum	Maximum	Minimum 6.90	Maximum 7.70	4.00	

	(inclu	ım Values de units)	Aver	age Values lude units)	Number	
Pollutant and CAS Number (if available)	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	of Storm Events Sampled	Sources of Pollutants
Dissolved Cu	592 ug/L		249 ug/L		4.00	
Dissolved Zn	587 ug/L		264.25 ug/L		4.00	
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Part A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

	1	um Values ide units)		rage Values clude units)	Number	
Pollutant and CAS Number (if available)	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	of Storm Events Sampled	Sources of Pollutants
Oil and Grease	<5.0 mg/L	N/A			1.00	
Biological Oxygen Demand (BOD5)	18 mg/L				1.00	
Chemical Oxygen Demand (COD)	89.39 mg/L				1.00	
Total Suspended Solids (TSS)	350 mg/L		84.6 mg/L		9.00	
Total Nitrogen	2.8 mg/L	•			1.00	
Total Phosphorus	0.52 mg/L				1.00	
pH	Minimum	Maximum	Minimum 6.80	Maximum 8.50	9.00	

	(inclu	um Values ide units)	Ave (inc	rage Values clude units)	Number	
Pollutant and CAS Number (if available)	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	of Storm Events Sampled	Sources of Pollutants
Dissolved Cu	882 ug/L		236.2 ug/L		9.00	,
Dissolved Zn	2620 ug/L		923.9 ug/L		9.00	
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Part A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

		um Values ude units)		erage Values clude units)	Number	
Pollutant and CAS Number (if available)	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	of Storm Events Sampled	Sources of Pollutants
Oil and Grease	<5.0 mg/L	N/A			1.00	
Biological Oxygen Demand (BOD5)	18 mg/L				1.00	
Chemical Oxygen Demand (COD)	89.39 mg/L				1.00	
Total Suspended Solids (TSS)	578 mg/L		143.9 mg/L	`	8.00	
Total Nitrogen	2.8 mg/L	÷			1.00	
Total Phosphorus	0.52 mg/L				1.00	
рН	Minimum	Maximum	Minimum 7.10	Maximum 7.70	8.00	

requ	irements.		·			
	(inclu	um Values ide units)	Ave (in	erage Values clude units)	Number	
Pollutant and CAS Number (if available)	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	of Storm Events Sampled	Sources of Pollutants
Dissolved Cu	1720ug/L	*	332.9 ug/L		8.00	
Dissolved Zn	4340 ug/L		1023.3 ug/L		8.00	
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Part A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

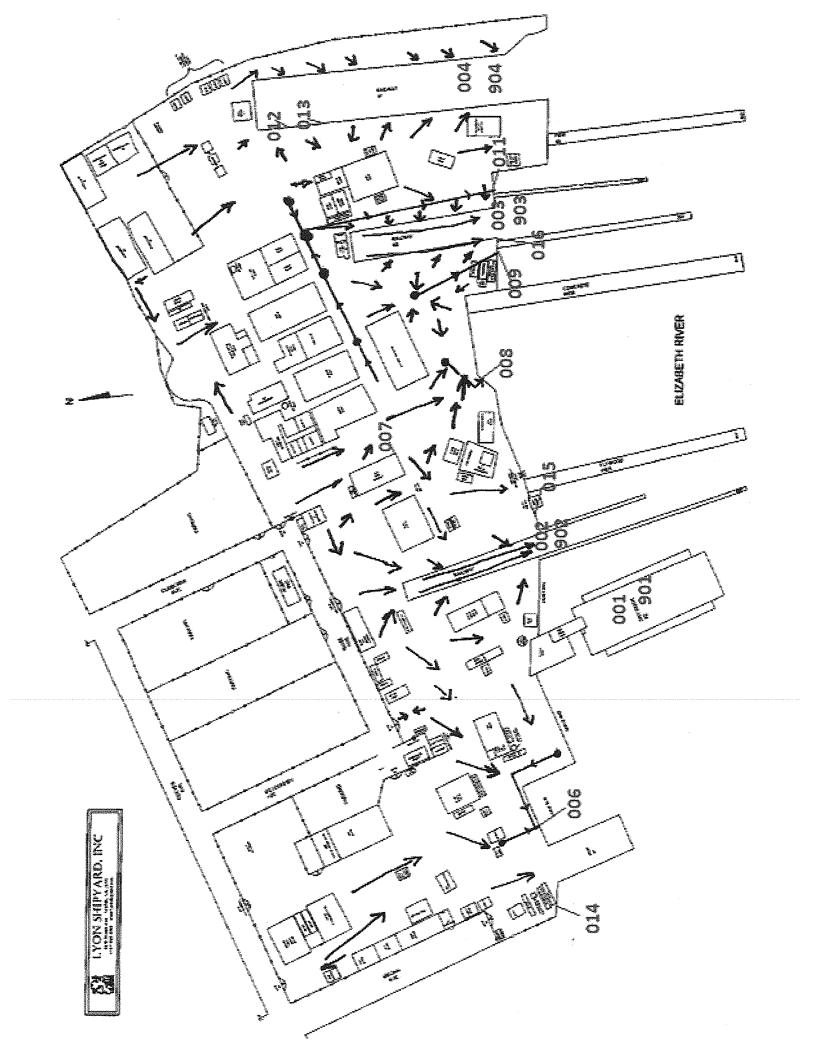
		num Values ude units)		rage Values clude units)	Number	,		
Pollutant and CAS Number (if available)	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	of Storm Events Sampled	Sources of Pollutants		
Oil and Grease	<5.0 mg/L	N/A			1.00			
Biological Oxygen Demand (BOD5)	18 mg/L				1.00			
Chemical Oxygen Demand (COD)	89.39 mg/L				1.00			
Total Suspended Solids (TSS)	322 mg/L		162.5 mg/L		8.00			
Total Nitrogen	2.8 mg/L				1.00			
Total Phosphorus	0.52 mg/L	,			1.00			
рН	Minimum	Maximum	Minimum 7.00	Maximum 7.60	8.00			

Maximum Values (include units)		Aver (inc	age Values lude units)	Number		
Pollutant and CAS Number (if available)	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	of Storm Events Sampled	Sources of Pollutants
Dissolved Cu	143 ug/L	·	88 ug/L		8.00	
Dissolved Zn	399 ug/L		207.6 ug/L		8.00	
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Sample Analysis for form 2F Permit App

		,,,,,,,,,,,		,																		
	O&G																		<5	#DIV/0i	0	0
	BOD5																		>108	i0/\lambdala#	0	0
	COD																		258.2	258.20	258.2	258.2
	TP																		0.24	0.24	0.24	0.24
-	NI																		2.8	2.80	2.8	2.8
)	TKN																		2.2	2.20	2.2	2.2
	NN																		0.62	0.62	0.62	0.62
; ;	TPH GRO	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	10/\/IG#	0	0
	TPH DRO	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	0.5	0.5	<0.5	<0.5	1.9		0.7	0.8	0.5	1.49	0.7	0.84	1.9	0.5
)	temp	22.6	15.5	21.1	19.5	18	10.8	18.1	27.3	19.6		23.8	23.6		28	13.9	28.3	24.8	4.2	19.94	28.3	4.2
)	Hď	6.9	7.4	7.2	7.2	7.1	7.3	7.1	7.3	7.3	7.5	4	6.8		6.7	7.4	6.9	6.8	7.5	7.14	7.5	6.7
	TSS (ppm)	106	13	5.3	47	72	12	25	101	44	76	15	162	129	34	75	45	228	17.7	67.06	228	5.3
)))	ZN(ppb)	1877	989	40	548	1715	417	525	548	4439	1118	3963	4646	1408	1982	2570	200	1445	1030	1633.72	4646	40
- : ;	Outfall Cu (ppb)	428	35	16	458	972	158	20	281	2083	869	1093	976	717	346	247	198	535	220	526.72	2083	16
	Outfall	901	901	901	901	901	901	901	901	901	901	901	901	901	901	901	901	901	901			
		92495	92495	92495	92495	92495	92495	92495	92495	92495	92495	92495	92495	92495	92495	92495	94495	94495	94495			
	Date	10/14/2010 92495	1/26/2011 92495	6/19/2011 92495	9/15/2011 92495	11/17/2011 92495	3/5/2012 92495	4/21/2012 92495	9/6/2012 92495	10/26/2012 92495	2/7/2013 92495	6/3/2013 92495	8/1/2013 92495	10/7/2013 92495	2/12/2014 92495	4/7/2014 92495	8/12/2014 94495	10/16/2014 94495	2/22/2015 94495	Average	Max	Min
		Н	2	3	4	2	9	7	8	6	10	11	12	13	14	15	16	17	18	Ť		لڪا

Sample Analysis for form 2F Permit App

O&G					<5	#####	0	0
BOD5					13	13	13	13
COD					1.7 2.3 0.08 72.98	2.3 0.08 72.98	2.3 0.08 72.98	1.7 2.3 0.08 72.98
TP					0.08	0.08	0.08	0.08
IN					2.3		2.3	2.3
TKN					1.7	1.7	1.7	1.7
N					0.57	0.57	0.57	0.57
TPH GRO	<0.5	<0.5	<0.5	<0.5		i0/∧IG#	0	0
TSS (ppm) pH temp TPH DRO TPH GRO NN TKN TN TP COD BODS 0&G	<0.5	<0.5	0.7	<0.5		0.7	0.7	0.7
temp	7.4 18.7	7.1 20.7	6.9 25.4	7.2 24.6	4.3	18.7	25.4	6.9 4.3
Hď	7.4	7.1	6.9	7.2	7.4	7.2	7.4	6.9
TSS (ppm)	35	6.1	76	26		35.775	76	6.1
(qdd)NZ	396	58	229	394		269.25	396	58
Outfall Cu (ppb) ZN(ppb)	08	31	222	220		138.25	222	31
Outfall	305	306	305	305	905			
	92495	92495	92495	92495	92495			
Date	11/17/2011 92495	5/15/2012 92495	11/26/2013 92495	9/8/2014 92495	2/22/2015 92495	Average	Max	Min
	1	2	3	4	5			

		,	,	,				,
	0&G					#####	0	c
	BOD5					######	0	0
	COD					#####	0	0
	TP					####	0	0
	Z.					###	0	0
	TKN					### #### ####	0	0
	Z					####	0	0
	TPH GRO	<0.5	<0.5	<0.5	<0.5	#DIV/0i	0	0
	TSS (ppm) pH temp TPH DRO TPH GRO NN TKN TN TP COD BODS 0&G	<0.5	<0.5	1.1	<0.5	1.1	1.1	1.1
	temp	20.2	7.4 20.2	6.9 13.3	6.9 24.4	7.2 19.5	24.4	6.9 13.3
	Ηd	7.7	7.4	6.9	6.9	7.2	1.7	6.9
	TSS (ppm)	142	561	74	94	217.75	561	74
	(Qdd)NZ	06	102	587	278	264.25	287	06
	Outfall Cu (ppb) ZN(ppb)	138	152	592	114	249	592	114
	Outfall	903	803	903	903			,
		92495	92495	92495	92495			
	Date	[10/13/2011 92495	5/15/2012 92495	3 11/26/2013 92495	9/8/2014 92495	Average	Max	Min
-		М	7	3	4			

Sample Analysis for form 2F Permit App

1 7																	
`	Date		Outfall	Cu (ppb) ZN(ppb)		TSS (ppm) pH temp	μd			TPH DRO TPH GRO NN	Z	TKN TN	LIN	TP	COD	COD BOD5	O&G
٠,	4/28/2011 92495	32495	9	105	214	23	7.7	19.6	<0.5	<0.5							
٠,	9/15/2011 92495	12495	9	89	121	58	7.7	19.5	<0.5	<0.5							
	5/9/2012 92495	12495	9	149	933	350	6.9	20.4	1.1	<0.5							
	9/6/2012 92495	12495	9	69	82	134	7.7	27.3	<0.5	<0.5							
7	4/12/2013 92495	12495	9	100	784	22	8.9	18.5	0.5	<0.5							
w	8/17/2013 92495	12495	9	882	7620	6.6	6.9	25.7	1.3	<0.5							
	4/7/2014 92495	12495	9	403	2459	74	7.2	13.8	1.5	<0.5							
1	10/15/2014 92495	12495	9	153	737	58	7.1	25.2	8.0	<0.5							
' "	2/22/2015 92495	12495	9	176	870	32.6	8.5	3.8	<0.5	<0.5	0.53	2.2	2.8	2.8 0.52	89.39	18	<5
اذِا	Average			236.2222	923.8889	923.8889 84.6111111 7.4		19.3	1.04	#DIV/0i	0.53	2.2	2.8	0.52	89.39	18	0
4	Max			882	2620	350	8.5	27.3	1.5	0	0.53	2.2	2.8	0.52	89.39	18	0
Min	u.			69	82	6.6	6.8	3.8	0.5	0	0.53	2.2	2.8	0.52	2.2 2.8 0.52 89.39	18	0

	Date		Outfall	Cu (ppb)	(qdd)NZ	TSS (ppm)	pH	temp	(ppb) ZN(ppb) TSS (ppm) PH temp TPH DRO TPH GRO NN TKN TN TP COD BODS O&G	TPH GRO	Z	TKN	LN	TP	COD	BOD5	O&G
н	4/28/2011 92495	92495	6	26	24	228	7.3	7.3 19.6	<0.5	<0.5							
7	10/13/2011 92495	92495	6	104	215	578	7.2	20.8	<0.5	<0.5							
3	4/21/2012 92495	92495	6	73	132	22	1.7	18.2	<0.5	<0.5							
4	9/6/2012 92495	92495	6	9	71	70	7.1	27.3	<0.5	<0.5							
2	4/12/2013 92495	92495	6	494	2905	216	7.2	7.2 21.4	3	<0.5							
9	8/17/2013 92495	92495	6	1720	4340	11	7.3	7.3 25.4	2.5	<0.5							
7	4/7/2014 92495	92495	6	53	256	4.5	7.6	14.1	<0.5	<0.5							
8	8/12/2014 92495	92495	6	103	243	22	7.3	26.2	0.5	<0.5							
	Average			332.875	1023.25	143.9375	7.3	7.3 21.6	2	#DIV/0i	####	#### ### ##### ####	###	####	#####	i0/\\IG# ####	#####
	Max			1720	4340	578	7.7	27.3	3	0	0	0	0	0	0	0	0
	Min			53	24	4.5	7.1	14.1	0.5	0	0	0	0	0	0	0	0

Date Outfall Cu (ppb) ZN(ppb) TSS (ppm) PH TPH DRO TPH GRO N TKN TN TP COD BOD5 O&C 1 4/28/2011 92495 11 143 97 322 7 196 <0.5 <0.5 P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P P		,	,	,	,,	,			,			
Outfall Cu (ppb) ZN(ppb) TSS (ppm) pH temp TPH DRO TPH GRO NN TKN TN TP 11 143 97 322 7 19.6 <0.5	9%0									#####	0	0
Outfall Cu (ppb) ZN(ppb) TSS (ppm) pH temp TPH DRO TPH GRO NN TKN TN TP 11 143 97 322 7 19.6 <0.5	BOD5									10/\IG#	0	0
Outfall Cu (ppb) ZN(ppb) TSS (ppm) pH temp TPH DRO TPH GRO NN TKN TN 11 143 97 322 7 19.6 <0.5	dop									#####	0	0
Outfall Cu 11 11 11 11 11 11 11	TP									####	0	0
Outfall Cu 11 11 11 11 11 11 11	TN									###	0	0
Outfall Cu 11 11 11 11 11 11 11	TKN									#####	0	0
Outfall Cu 11 11 11 11 11 11 11	Z									####	0	0
Outfall Cu 11 11 11 11 11 11 11	TPH GRO	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	#DIV/0i	0	0
Outfall Cu 11 11 11 11 11 11 11	TPH DRO	<0.5	<0.5	<0.5	<0.5	0.7	9.0	0.5	<0.5	9.0	0.7	0.5
Outfall Cu 11 11 11 11 11 11 11	temp	19.6	20.8	18.6	27.3		24.7	14.1	25.1	21.4	27.3	14.1
Outfall Cu 11 11 11 11 11 11 11	$H^{\mathbf{d}}$	7	7.3	7.5	7.4	7.6	7.5	2.6	7	7.4	7.6	7
Outfall Cu 11 11 11 11 11 11 11	TSS (ppm)	322	315	59	150	104	114	141	95	162.5	322	59
Outfall Cu 11 11 11 11 11 11	(qdd)NZ	97	310	169	45	399	\$>	352	81	207.5714	399	45
	Cu (ppb)	143	134	46	46	92	129	98	28	88	143	28
Date 1 4/28/2011 92495 2 10/13/2011 92495 3 4/21/2012 92495 4 9/6/2012 92495 5 4/12/2013 92495 6 8/17/2014 92495 7 4/7/2014 92495 8 10/15/2014 92495 Average Max Min	Outfall	11	11	11	11	11	11	11	11			
Date 1 4/28/2011 2 10/13/2011 3 4/21/2012 4 9/6/2012 5 4/12/2013 6 8/17/2014 7 4/7/2014 8 10/15/2014 Average Max Min		92495	92495	92495	92495	92495	92495	92495	92495			
11 2 8 4 3 9 7 8 4 7 7	Date	4/28/2011	10/13/2011	4/21/2012	9/6/2012	4/12/2013	8/17/2013	4/7/2014	10/15/2014	Werage	Лах	⁄lin
		щ	2	3	4	2	9	7	8	۸	_	_



Universal Laboratories 20 Research Drive Hampton, VA 23666

Phone: 1-800-695-2162

Client Report For:

Lyon Shipyard Inc.

Attention:

Mr. Dan Terry

Client Address:

P.O. Box 2180

Norfolk, VA 23501

Project:

OF-901 Permit Application Norfolk Facility

Order Number:

1502365

Report Date:

03/03/2015

Lab Receipt Date:

02/23/2015

Comment:

This report contains the analytical results for the indicated Project and Order. The results contained in this report relate only to the samples identified in this Order. The analytical results meet all requirements of NELAC unless specifically stated. This

report shall not be reproduced except in full.

The data in this report has been reviewed and validated by:

Signature

+5-000

Report Serial #: 1502365 Page 1 of 3

Report Type: Original

Universal Laboratories

Client: Lyon Shipyard Inc.

Lab ID: 1502365-001

Client Sample ID: OF-901 Grab

Collection Date: 02/22/2015 01:10

Matrix: AQUEOUS

ΕK

460036

Report Type: Original

Analyses

Bioche	emical	Оху	gen
_			_

Phosphorus, Total

D

Demand (BOD) 5 Day	SM 5210 B (2011)						
	Test Result	<u>Unit</u>	RL	<u>Analysis Date</u>	Analysis By	Qualifier	Cert #
Biochemical Oxygen Demand	>108	mg/L	2	2/28/15 19:54	sw		460036
Chemical Oxygen Demand	HACH 8000						
	Test Result	<u>Unit</u>	RL	Analysis Date	Analysis By	Qualifier	Cert #
Chemical Oxygen Demand	258.2	mg/L	20	03/2/15 13:42	EK		460036
Nitrogen, Total	EPA 351.2/ EPA 35	3.2					
	Test Result	<u>Unit</u>	RL	Analysis Date	Analysis By	Qualifier	Cert #
Nitrate/Nitrite as N	0.62	mg/L	0.1	02/24/2015 20:00	EK		460036
Nitrogen, Total Kjeldahl	2.2	mg/L	0.2	02/24/2015 20:00	EK		460036
Nitrogen, Total	2.8	mg/L	0.2	02/24/2015 20:00	EK		
Oil and Grease	EPA 1664A						
	Test Result	<u>Unit</u>	RL	Analysis Date	Analysis By	Qualifier	Cert #
Oil and Grease	ND	mg/L	5	2/25/15 15:10	LS		460036
Phosphorus, Total	EPA 365.1						
	Test Result	<u>Unit</u>	<u>RL</u>	Analysis Date	Analysis By	Qualifier	Cert #

0.02

02/23/2015 17:56

0.24

mg/L

(Blossary of Terms and Abbreviations
В	Analyte was found in the method blank
D	RPD outside acceptable limits
Н	Holding time exceeeded
IS	Internal standard outside acceptable limits
J	Result above calibration curve - results are approximate
L	LCS Outside acceptable limits
MI	Matrix interence
MS	Matrix spike recovery outside acceptable limits
QC	Method QC criteria not met
S	Surrogate outside acceptable limits
V	ICV/CCV/FCV outside acceptable limits
Calibration Verfication (Initial, Continuing, or Final)	A standard analyzed at different times to verify that the initial calibration curve is still valid.
Holding Time	The maximum time that samples may be held prior to analysis and still be considered valid or not compromised.
Internal Standard	A known amount of standard added to a test portion of a sample as a reference for evaluating and controlling the precision and bias of the applied analytical method.
LCS (Laboratory Control Sample)	A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
Method Blank	A sample of a matrix similar to the batch associated samples (when available) that is free from the analytes of interest and is processed simulatanously with and under the same conditions as samples.
MS/MSD (Matrix Spike or Matrix Spike Duplicate)	A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analytes concentration is available. Matrix Spikes are used, for example, to determine the effect of the matrix on a method's recovery efficiency.
RL (Reporting Limit)	The minimum levels, concentrations, or quantities of a target analyte that can be reported within a specified degree of confidence. Generally, this number is equal to or just above the lowest calibration standard run with the analytical batch.
RPD (Relative Percent Difference)	The difference between a set of duplicates or sample spike duplicates.
Surrogate	A substance with properties that mimic the analyte of interest. It is unlikely to be found in environmental samples and is added to them for quality control purposes in Organics.



Universal Laboratories 20 Research Drive Hampton, VA 23666

Phone: 1-800-695-2162

Client Report For:

Lyon Shipyard Inc.

Attention:

Mr. Dan Terry

Client Address:

P.O. Box 2180

Norfolk, VA 23501

Project:

OF-902 Permit Application Norfolk Facility

Order Number:

1502371

Report Date:

03/03/2015

Lab Receipt Date:

02/23/2015

Comment:

This report contains the analytical results for the indicated Project and Order. The results contained in this report relate only to the samples identified in this Order. The analytical results meet all requirements of NELAC unless specifically stated. This

report shall not be reproduced except in full.

The data in this report has been reviewed and validated by:

Signature

Dar - Santa I

Universal Laboratories

Client: Lyon Shipyard Inc.

Lab ID: 1502371-001

Client Sample ID: OF-902 Grab

Collection Date: 02/22/2015 01:30

Matrix: AQUEOUS

ΕK

460036

Analyses

Bioch	em	ical	Οx	y	gen
Dama	nd	/DA	n	_	D

Phosphorus, Total

SM 5210 B (2011)

Demand (BOD) 5 Day	SM 5210 B (2011)						
Biochemical Oxygen Demand	Test Result	Unit mg/L	<u>RL</u> 2	Analysis Date 2/28/15 19:54	Analysis By SW	Qualifier	Cert # 460036
Chemical Oxygen Demand	HACH 8000						
	Test Result	<u>Unit</u>	RL	<u>Analysis Date</u>	Analysis By	Qualifier	Cert #
Chemical Oxygen Demand	72.98	mg/L	20	03/2/15 13:42	EK		460036
Nitrogen, Total	EPA 351.2/ EPA 35	3.2					
	Test Result	<u>Unit</u>	RL	Analysis Date	Analysis By	Qualifier	Cert #
Nitrate/Nitrite as N	0.57	mg/L	0.1	02/24/2015 20:00	EK		460036
Nitrogen, Total Kjeldahl	1.7	mg/L	0.2	02/24/2015 20:00	EK		460036
Nitrogen, Total	2.3	mg/L	0.2	02/24/2015 20:00	EK		
Oil and Grease	EPA 1664A						
	Test Result	<u>Unit</u>	RL	Analysis Date	Analysis By	Qualifier	Cert #
Oil and Grease	ND	mg/L	5	2/25/15 15:10	LS		460036
Phosphorus, Total	EPA 365.1						
	Test Result	<u>Unit</u>	<u>RL</u>	Analysis Date	Analysis By	Qualifier	Cert #

0.02

80.0

mg/L

02/23/2015 17:56

C	Glossary of Terms and Abbreviations
В	Analyte was found in the method blank
D	RPD outside acceptable limits
Н	Holding time exceeeded
IS	Internal standard outside acceptable limits
J	Result above calibration curve - results are approximate
L	LCS Outside acceptable limits
MI	Matrix interence
MS	Matrix spike recovery outside acceptable limits
QC	Method QC criteria not met
S	Surrogate outside acceptable limits
V	ICV/CCV/FCV outside acceptable limits
Calibration Verfication (Initial, Continuing, or Final)	A standard analyzed at different times to verify that the initial calibration curve is still valid.
Holding Time	The maximum time that samples may be held prior to analysis and still be considered valid or not compromised.
Internal Standard	A known amount of standard added to a test portion of a sample as a reference for evaluating and controlling the precision and bias of the applied analytical method.
LCS (Laboratory Control Sample)	A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
Method Blank	A sample of a matrix similar to the batch associated samples (when available) that is free from the analytes of interest and is processed simulatanously with and under the same conditions as samples.
MS/MSD (Matrix Spike or Matrix Spike Duplicate)	A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analytes concentration is available. Matrix Spikes are used, for example, to determine the effect of the matrix on a method's recovery efficiency.
RL (Reporting Limit)	The minimum levels, concentrations, or quantities of a target analyte that can be reported within a specified degree of confidence. Generally, this number is equal to or just above the lowest calibration standard run with the analytical batch.
RPD	The difference between a set of duplicates or sample spike duplicates.
(Relative Percent Difference)	
Surrogate	A substance with properties that mimic the analyte of interest. It is unlikely to be found in environmental samples and is added to them for quality control purposes in Organics.

CHAIN-OF-CHAIN

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Analysis/Required		EN ()	eservative A		-									Due Date:	Express Service	Express Service Approval	der No.	Order	P.U.□ Grab□ Comp□	Shipping/Delivery Charges	Composite Start / Composite Stop	
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Street/Box 1916 Brown Art	1 1	Contact: Dan Temy Job No. / P.O. No.	Sample (ID) Date/Tilme)	704									Comments:		Possible Hazards:	Signature / /////	Signature	By Signature	Received By Signature	Relinquished By Signature	Received By Signature	



Universal Laboratories 20 Research Drive Hampton, VA 23666

Phone: 1-800-695-2162

Client Report For:

Lyon Shipyard Inc.

Attention:

Mr. Dan Terry

Client Address:

P.O. Box 2180

Norfolk, VA 23501

Project:

OF-006 Permit Application Norfolk Facility

Order Number:

1502368

Report Date:

03/03/2015

Lab Receipt Date:

02/23/2015

Comment:

This report contains the analytical results for the indicated Project and Order. The results contained in this report relate only to the samples identified in this Order. The analytical results meet all requirements of NELAC unless specifically stated. This

report shall not be reproduced except in full.

The data in this report has been reviewed and validated by:

Signature

_ Title

Universal Laboratories

Client: Lyon Shipyard Inc.

Lab ID: 1502368-001

Client Sample ID: OF-006 Grab

Collection Date: 02/22/2015 01:25

Matrix: AQUEOUS

<u>Analyses</u>

В	ioci	he	m	ical	Оx	yg	en
_				-	-		

Biochemical Oxygen Demand (BOD) 5 Day	SM 5210 B (2011)						
Biochemical Oxygen Demand	Test Result	<u>Unit</u> mg/L	<u>RL</u> 2	Analysis Date 2/28/15 19:54	Analysis By SW	<u>Qualifier</u>	Cert # 460036
Chemical Oxygen Demand	HACH 8000						
Chemical Oxygen Demand	Test Result 89.39	<u>Unit</u> mg/L	RL 20	Analysis Date 03/2/15 13:42	Analysis By EK	Qualifier	Cert # 460036
Nitrogen, Total	EPA 351.2/ EPA 35	3.2					
	Test Result	<u>Unit</u>	RL	Analysis Date	Analysis By	Qualifier	Cert #
Nitrate/Nitrite as N	0.53	mg/L	0.1	02/24/2015 20:00	EK		460036
Nitrogen, Total Kjeldahl	2.2	mg/L	0.2	02/24/2015 20:00	EK.		460036
Nitrogen, Total	2.8	mg/L	0.2	02/24/2015 20:00	EK		
Oil and Grease	EPA 1664A						
	Test Result	<u>Unit</u>	RL	Analysis Date	Analysis By	Qualifier	Cert #
Oil and Grease	ND	mg/L	5	2/25/15 15:10	LS		460036
Phosphorus, Total	EPA 365.1						
	Test Result	<u>Unit</u>	RL	Analysis Date	Analysis By	Qualifier	Cert #
Phosphorus, Total	0.52	mg/L	0.02	02/23/2015 17:56	EK		460036

Report Type: Original

	Glossary of Terms and Abbreviations
В	Analyte was found in the method blank
D	RPD outside acceptable limits
Н	Holding time exceeded
IS	Internal standard outside acceptable limits
J	Result above calibration curve - results are approximate
L	LCS Outside acceptable limits
MI	Matrix interence
MS	Matrix spike recovery outside acceptable limits
QC	Method QC criteria not met
S	Surrogate outside acceptable limits
V	ICV/CCV/FCV outside acceptable limits
Calibration Verfication (Initial, Continuing, or Final)	A standard analyzed at different times to verify that the initial calibration curve is still valid.
Holding Time	The maximum time that samples may be held prior to analysis and still be considered valid or not compromised.
Internal Standard	A known amount of standard added to a test portion of a sample as a reference for evaluating and controlling the precision and bias of the applied analytical method.
LCS (Laboratory Control Sample)	A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
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RPD	The difference between a set of duplicates or sample spike duplicates.
(Relative Percent Difference)	
Surrogate	A substance with properties that mimic the analyte of interest. It is unlikely to be found in environmental samples and is added to them for quality control purposes in Organics.

DA ONIN	•	20 Research Drive	WASSON	Phone: (757) 865-0880
CHAIN-OF-CUSTODY	Street/Box John Ship yard	City/State Nac 6/1k JA	Figure 757-323-264A Fax	Contact: Dan Terry

Analysis Description	Day nednited	SSING	Solvative or servative or serva	A X X X X								Due Date:	Express Service	Charge ☐ Express Service Approval	14		1	<u></u>	Composite Start / Composite Stop	
	20 Research Drive Hampton, VA 23666	Phone: (757) 865-0880 Fax: (757) 865-8014	Sampled Matrix Sample Field Paris	S 54 Co.	9 O	© ©	CG	9 0	5 0	5 0	0 0	200		Lab □ Client □	Lynn Shipyan Data Ting	CAS CASE		J2/2/2	Date/	. Date/Time
Street/Box 2019 yard	City/State Nockelk JA Phone 757-323-264A Fax	Contact: Dan Terry Job No. P.O. No.	Samble/ID	00.00							Comments:		Possible Hazards:	Relinquished By Signature	Signature 7	By Signature	Signerfure	By Signature 6	Received By Signature	

*If noncontact cooling water is discharged

If yes, briefly describe the frequency of flow and duration.	
Used only in the case of fire emergency or testing.	
	u. Stratistico
I. TREATMENT SYSTEM (Describe briefly any treatment system(s) used or to be used)	70 - 20 - 20 - 20 - 20 - 20 - 20 - 20 -
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/II. OTHER INFORMATION (Optional)	
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Please print or type in the unshad		EPA ID Number (copy fr JAD003177003	om Item 1 of Form 1)		oved. OMB No. 2040 kpires 5-31-92.	-0086.
FORM SEPA	Facilities V	Vhich Do N	lot Dischar	ge Proces	s Wastew	vater
I. RECEIVING WATERS						
Fort	his outfall, list the	alatitude and lon	gitude, and name	e of the receiving	water(s).	
Outfall Lati	tude L	ongitude Rec	eiving Water (name)			
	lin Sec Deg	Min Sec	***************************************	***************************************		
015 36.0(84	.0(87.0(-76.(26.00 96.00 Eas	stern Branch	Elizabeth Ri	ver	
II. DISCHARGE DATE (If a nev			discharging)			
III.TYPE OF WASTE						
A. Check the box(es) indicating	the general type(s)	of wastes discharged				
☐ Sanitary Wastes ☐	Restaurant or Cafel	eria Wastes	□ Noncontact	Cooling Water	Other Nonpro Wastewater (
Outfall is used for f fighting fires. No ad	ditives are us	sed in the pro	cess of intake	or discharge	II KIVEL TOI	the means of
IV. EFFLUENT CHARACTERIS	STICS					
A. Existing Sources — Proauthority (see instruction. B. New Dischargers — Proauthority. Instead of the research.)	s). ovide estimates for the number of measurem	e parameters listed ir	n the left-hand columne source of estimate	n below, unless waive	ed by the permittin	9
Pollutant or Parameter	Daily	mum Value	Value (I	e Daily ast year)	Number of	or) (4)
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Biochemical Oxygen Demand (BOD)					(last year)	
Total Suspended Solids (TSS)						
Fecal Coliform (if believed present or if sanitary waste is discharged)	:					
Total Residual Chlorine (if chlorine is used)						
Oil and Grease						
*Chemical oxygen demand (COD)						i

*Total organic carbon (TOC)						
*Total organic carbon (TOC) iAmmonia (as N)						
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Ammonia (as N) Discharge Flow		°C		°C		
Ammonia (as N) Discharge Flow pH (give range)		°C		°C		

V. Except for leaks or spills, will the discharge described in this form be intermittent or seasonal? If yes, briefly describe the frequency of flow and duration. Yes	□ No
Used only in the case of fire emergency or testing.	
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VI. TREATMENT SYSTEM (Describe briefly any treatment system(s) used or to be used)	
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VIII. OTHER INFORMATION (Online)	
VII. OTHER INFORMATION (Optional) Use the space below to expand upon any of the above questions or to bring to the attention of the reviewer any other	r information you feel
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Pollutant or Parameter	Da	(1) aximum ly Value ude units)	Value	(2) age Daily (last year) ide units)	(3) Number of Measurements	(or)	(4) e of Estimate
	Mass	Concentration	Mass	Concentration	Taken (last year)		v discharger)
Biochemical Oxygen Demand (BOD)							
Total Suspended Solids (TSS)							
Fecal Coliform (if believed present or if sanitary waste is discharged)							
Total Residual Chlorine (if chlorine is used)							-,
Oil and Grease							
*Chemical oxygen demand (COD)							
*Total organic carbon (TOC)							
Ammonia (as N)			-				
Discharge Flow	Value						
pH (give range)	Value	***************************************					
Temperature (Winter)		°C		°C			
Temperature (Summer)		°c		°C			

V. Except for leaks or spills, will the discharge described in this form be intermittent or seasonal? If yes, briefly describe the frequency of flow and duration.	☑ Yes ☐ No
Used only in the case of fire emergency or testing.	
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VI. TREATMENT SYSTEM (Describe briefly any treatment system(s) used or to be used)	
NA	
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VII. OTHER INFORMATION (Optional)	
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